STIC search 7/15/99 Loosmore Yang Klein Sasaki

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=> d his

     (FILE 'HOME' ENTERED AT 11:24:56 ON 16 DEC 2004)

     FILE 'HCAPLUS' ENTERED AT 11:25:27 ON 16 DEC 2004
               E WO2000-CA811/AP,PRN
L1             1 WO2000-CA811/AP,PRN
L2             1 US6391313/PN
L3             1 L1-2

     FILE 'REGISTRY' ENTERED AT 11:26:35 ON 16 DEC 2004

     FILE 'HCAPLUS' ENTERED AT 11:26:37 ON 16 DEC 2004
L4             TRA L3 1- RN :         4 TERMS

     FILE 'REGISTRY' ENTERED AT 11:26:37 ON 16 DEC 2004
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     FILE 'WPIX' ENTERED AT 11:26:42 ON 16 DEC 2004
               E WO2000-CA811/AP,PRN
L6             1 WO2000-CA811/AP,PRN
L7             1 US6391313/PN
L8             1 L6-7

=> b hcap
FILE 'HCAPLUS' ENTERED AT 11:27:25 ON 16 DEC 2004
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FILE COVERS 1907 - 16 Dec 2004  VOL 141 ISS 25
FILE LAST UPDATED: 15 Dec 2004  (20041215/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> d all l3

L3   ANSWER 1 OF 1  HCAPLUS  COPYRIGHT 2004 ACS on STN
AN   2001:63846  HCAPLUS
DN   134:120915
ED   Entered STN:  26 Jan 2001
TI   Multicomponent vaccine to protect against disease caused by Haemophilus
     influenzae and Moraxella catarrhalis
IN   Loosmore, Sheena M.; Yang, Yan-Ping; Klein, Michel H.; Sasaki, Ken
PA   Connaught Laboratories Limited, Can.
SO   PCT Int. Appl., 58 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
IC   ICM  A61K039-00
CC   63-3 (Pharmaceuticals)
     Section cross-reference(s): 15
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
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PI   WO 2001005424        A2    20010125    WO 2000-CA811          20000711 <--
     WO 2001005424        A3    20010802
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
             HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
             LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
             SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
             YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
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applicants 9th

Search done by Noble Jarrell

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        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
            DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
            CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
    US 6391313          B1    20020521    US 1999-353617         19990715 <--
    CA 2378862          AA    20010125    CA 2000-2378862        20000711 <--
    EP 1200122          A2    20020502    EP 2000-945494         20000711 <--
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PRAI US 1999-353617     A     19990715
    WO 2000-CA811       W     20000711  <--
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 PATENT NO.       CLASS  PATENT FAMILY CLASSIFICATION CODES
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 WO 2001005424    ICM    A61K039-00
 US 6391313       ECLA   A61K039/116                                    <--
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AB A multi-valent immunogenic composition confers protection on an immunized host against infection caused by both Haemophilus influenzae and Moraxella catarrhalis. Such composition comprises at least four antigens comprising at least one antigen from Haemophilus influenzae, and at least one antigen from Moraxella catarrhalis. Three of the antigens are adhesins. High mol. weight (HMW) proteins and Haemophilus influenzae adhesin (Hia) proteins of non-typeable Haemophilus and a 200 kDa outer membrane protein of Moraxella catarrhalis comprise the adhesin components while the other antigen is a non-proteolytic analog of Hin47 protein. Each component does not impair the immunogenicity of the others. The multi-valent immunogenic composition may be combined with DTP component vaccines, which may also include non-virulent poliovirus and PRP-T, to provide a component vaccine without impairment of the immunogenic properties of the other antigens.

ST adhesin antigen vaccine Haemophilus Moraxella

IT Proteins, specific or class
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PROC (Process); USES (Uses)
(HMW1; multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)

IT Proteins, specific or class
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PROC (Process); USES (Uses)
(HMW2; multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)

IT Proteins, specific or class
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PROC (Process); USES (Uses)
(Hin47; multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)

IT Proteins, specific or class
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PROC (Process); USES (Uses)
(Hsf (Haemophilus surface fibril); multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)

IT Proteins, specific or class
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PROC (Process); USES (Uses)
(OMP (outer membrane protein); multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)

IT Immunostimulants
(adjuvants; multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)

IT Agglutinins and Lectins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(agglutinogens; multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)

IT Adhesins
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PROC (Process); USES (Uses)
(antigenic; multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)

IT Toxoids
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(diphtheria; multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)

IT Organelle
(fibril, surface; multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)

IT Hemagglutinins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(filamentous; multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)

IT Chinchilla
Haemophilus influenzae
Molecular cloning
Molecular weight distribution
Moraxella catarrhalis
Polyacrylamide gel electrophoresis
Vaccines
(multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)

IT Antigens
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PROC (Process); USES (Uses)
(multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)

IT Heat-shock proteins
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PROC (Process); USES (Uses)
(non-proteolytic; multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)

IT Human poliovirus
(non-virulent; multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)

IT Ear
(otitis, otitis media; multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)

IT Agglutinins and Lectins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(pertactins; multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)

IT Toxoids
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(pertussis; multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)

IT Mutation
(substitution; multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)

IT Toxoids
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(tetanus; multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)

IT 9001-92-7, Proteinase
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)

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(activity levels; multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)
IT 7784-30-7, Aluminum phosphate 21645-51-2, Aluminum hydroxide, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(adjuvant; multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)
IT 151-21-3, Sds, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)

=> b reg
FILE 'REGISTRY' ENTERED AT 11:27:31 ON 16 DEC 2004
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 14 DEC 2004 HIGHEST RN 797749-23-6
DICTIONARY FILE UPDATES: 14 DEC 2004 HIGHEST RN 797749-23-6

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=> d ide l5 tot

L5 ANSWER 1 OF 4 REGISTRY COPYRIGHT 2004 ACS on STN
RN **21645-51-2** REGISTRY
CN Aluminum hydroxide (Al(OH)3) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Aluminum hydroxide (6CI, 8CI)
OTHER NAMES:
CN 42STE
CN A 3011
CN AC 400
CN AC 400 (hydroxide)
CN AC 450
CN AC 714KC
CN AE 107
CN AF 260
CN AKP-DA
CN Alcan SF 4
CN Alcoa 331
CN Alcoa 710
CN Alcoa A 325
CN Alcoa AS 301
CN Alcoa C 30BF
CN Alcoa C 31
CN Alcoa C 33
CN Alcoa C 330
CN Alcoa C 331
CN Alcoa C 333
CN Alcoa C 385
CN Alcoa H 65
CN Alcoa OC 1000
CN Alhydrogel
CN Alolt 50AF
CN Alolt 59
CN Alolt 60FLS
CN Alolt 8
CN Alolt 80

CN Alolt 90
CN Alternagel
CN Alugel
CN Alugelibys
CN Alumigel
CN Alumina trihydrate
CN Aluminic acid (H3AlO3)
CN Aluminum oxide (Al2O3), trihydrate
CN Aluminum oxide trihydrate
CN Aluminum trihydroxide
CN Alusal
CN Amberol ST 140F
CN Amphogel
CN Amphojel
CN Antipollon HT
CN Apyral
CN Apyral 120
CN Apyral 120VAW
CN Apyral 15
CN Apyral 2
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CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIOGENES, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT, PS, RTECS*, TOXCENTER, TULSA, USAN, USPAT2, USPATFULL, VETU, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)
DT.CA CAplus document type: Book; Conference; Dissertation; Journal; Patent; Report
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
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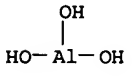

**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

22458 REFERENCES IN FILE CA (1907 TO DATE)
374 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
22498 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L5 ANSWER 2 OF 4 REGISTRY COPYRIGHT 2004 ACS on STN
RN 9001-92-7 REGISTRY
CN Proteinase (9CI) (CA INDEX NAME)
OTHER NAMES:
CN .alpha.-N-Benzoyl-DL-arginine-p-nitroanilide hydrolase
CN 537 Acidic protease

CN Actinase
CN Alcalase 2.5LDX
CN Alkalase 2.4L FG
CN Alkalase 2.5L Type DX
CN Alkalase 2.5L type X
CN Alkaline protease-L FG
CN ALP 901
CN Alphamalt BK 5020
CN Alphamalt LQ 4020
CN AO protease
CN APL 901
CN Aquatinase E
CN Arginine esterase
CN AS 1.398
CN AS 10
CN Azocaseinase
CN BAPAase
CN BAPNAase
CN Benzoyl arginine arylamidase
CN Benzoyl-DL-arginine-p-nitroanilide hydrolase
CN Bioprase 30L
CN Bioprase SP 4FG
CN Bioprotease A
CN Bioprotease N 100P
CN Biopurase
CN Biosoft PW
CN Carbonyl hydrolase
CN Casein endopeptidase
CN Caseinase
CN CL-5PG
CN Cleanase AP 100-PWC
CN Corolase 7089
CN Corolase L 10
CN DA 10
CN DA 10 (enzyme)
CN Denapsin 10P
CN Denatyme AP
CN Deozyme
CN Deterzyme L-600
CN Durazyme 16.0L
CN Endopeptidase
CN Endopeptidase O
CN Endoprotease
CN Endoproteinase
CN Enzeco fungal acid protease
CN Enzylase K 40
CN Enzylon SAL
CN Enzylon SAL 300
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for DISPLAY
DR 9001-93-8, 9012-23-1, 9040-76-0, 125498-72-8, 125752-86-5, 123779-18-0, 124041-97-0, 120038-39-3, 120038-40-6, 105913-13-1, 118901-82-9, 144906-30-9, 143404-30-2, 143404-41-5, 80804-52-0, 116267-38-0, 117278-03-2, 117698-27-8, 118390-80-0
MF Unspecified
CI COM, MAN
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DIOGENES, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MSDS-OHS, NAPRALERT, NIOSHTIC, PIRA, PLASPEC*, PROMT, RTECS*, TOXCENTER, TULSA, USPAT2, USPATFULL, VTB
(*File contains numerically searchable property data)
Other Sources: EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)
DT.CA CAplus document type: Book; Conference; Dissertation; Journal; Patent; Report
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
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study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
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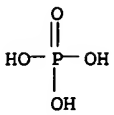
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

40754 REFERENCES IN FILE CA (1907 TO DATE)
491 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
40811 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 3 OF 4 REGISTRY COPYRIGHT 2004 ACS on STN
RN 7784-30-7 REGISTRY
CN Phosphoric acid, aluminum salt (1:1) (8CI, 9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Aluminum phosphate (Al(PO4)) (7CI)
OTHER NAMES:
CN ALPO
CN AlPO 11
CN AlPO 5
CN aluminophosphate (AlPO4)
CN Aluminum monophosphate
CN Aluminum orthophosphate
CN Aluminum phosphate
CN Aluminum phosphate (1:1)
CN Aluphos
CN Fabutit 320
CN Fabutit 748
CN FB 67
CN FFB 32
CN Fosfalugel
CN Fosfalumina
CN K-Bond 90
CN Monoaluminum phosphate
CN Phosphaljel
CN Phosphalugel
CN Phosphalujel
CN Phosphalutab
CN Phosphaluvet
CN Ulcocid
CN VPI
AR 98499-64-0
DR 13765-93-0, 8022-59-1, 135151-77-8, 51668-55-4, 36201-72-6, 37324-42-8, 93237-81-1, 89686-54-4, 52350-11-5
MF Al . H3 O4 P
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DDFU, DETHERM*, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, IFICDB, IFIPAT, IFIUDB, IMSCOSEARCH, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, TOXCENTER, TULSA, ULIDAT, USAN, USPAT2, USPATFULL, VETU, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)
DT.CA CAplus document type: Book; Conference; Dissertation; Journal; Patent; Preprint; Report
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU

(Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
CRN (7664-38-2)



● Al

6359 REFERENCES IN FILE CA (1907 TO DATE)
108 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
6374 REFERENCES IN FILE CAPLUS (1907 TO DATE)
4 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L5 ANSWER 4 OF 4 REGISTRY COPYRIGHT 2004 ACS on STN
RN **151-21-3** REGISTRY
CN Sulfuric acid monododecyl ester sodium salt (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN Adeka Hope LS 35
CN Adeka Hope LS 90
CN Akyposal NLS
CN Akyposal SDS
CN Alscoap LN 40A
CN Alscoap LN 90
CN Alscoap MP 90N
CN Alscoap SP 40
CN Aquarex Me
CN Avirol 101
CN Avirol SL 2010
CN Berol 452
CN Bio-Soft SDBS 60
CN Calfoam SLS 30
CN Carsonol SLS-S
CN Conco Sulfate WAS
CN Cycloryl 21LS
CN Cycloryl 580
CN Dehydag Sulfate GL
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CN Dodecyl sodium sulfate
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CN Dreft
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CN Duponol WAQM
CN Emal 10
CN Emal 10 Needle
CN Emal 10 Powder
CN Emal 2F
CN Emal 2F Needle
CN Emal 2F30
CN Emal O
CN Emal OS
CN Empicol 0303
CN Empicol 0303VA
CN Empicol BSD 70
CN Empicol LPZ
CN Empicol LS 30
CN Empicol LX 28
CN Empicol LX 28R
CN Empicol LX 42
CN Empicol LXSV 938U
CN Empicol LXV
CN Empicol LY 28S
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     61711-39-5, 111726-87-5, 74433-77-5, 145269-44-9, 152155-52-7,
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       DETHERM*, DIOGENES, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT,
       ENCOMPPAT2, GMELIN*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*,
       MSDS-OHS, NIOSHTIC, PDLCOM*, PHAR, PIRA, PROMT, RTECS*, TOXCENTER,
       TULSA, ULIDAT, USAN, USPAT2, USPATFULL, VETU, VTB
         (*File contains numerically searchable property data)
     Other Sources:   DSL**, EINECS**, TSCA**
         (**Enter CHEMLIST File for up-to-date regulatory information)
DT.CA  CAplus document type:  Book; Conference; Dissertation; Journal; Patent;
       Preprint; Report
RL.P   Roles from patents:  ANST (Analytical study); BIOL (Biological study);
       MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC
       (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses);
       NORL (No role in record)
RLD.P  Roles for non-specific derivatives from patents:  ANST (Analytical
       study); BIOL (Biological study); PREP (Preparation); PROC (Process); PRP
       (Properties); USES (Uses)
RL.NP  Roles from non-patents:  ANST (Analytical study); BIOL (Biological
       study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU
       (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT
       (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.NP Roles for non-specific derivatives from non-patents:  ANST (Analytical
       study); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU
       (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT
       (Reactant or reagent); USES (Uses)
CRN  (151-41-7)
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$HO_3SO-(CH_2)_{11}-Me$

● Na

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**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

          30993 REFERENCES IN FILE CA (1907 TO DATE)
            324 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
          31054 REFERENCES IN FILE CAPLUS (1907 TO DATE)
             32 REFERENCES IN FILE CAOLD (PRIOR TO 1967)


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FILE LAST UPDATED:          13 DEC 2004      <20041213/UP>
MOST RECENT DERWENT UPDATE:     200480       <200480/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE,
    PLEASE VISIT:
 http://www.stn-international.de/training_center/patents/stn_guide.pdf <<<

>>> FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE
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>>> NEW DISPLAY FORMAT HITSTR ADDED ALLOWING DISPLAY OF
HIT STRUCTURES WITHIN THE BIBLIOGRAPHIC DOCUMENT <<<

>>> SMILES and ISOSMILES strings are no longer available as
Derwent Chemistry Resource display fields <<<

=> d all l8 tot

L8 ANSWER 1 OF 1 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
AN 2001-168447 [17] WPIX
DNC C2001-050284
TI Novel multivalent immunogenic composition for conferring protection against infection caused by Hameophilus influenzae and Moraxella catarrhalis comprises four antigens derived from each of the two microorganisms.
DC B04 D16
IN KLEIN, M H; LOOSMORE, S M; SASAKI, K; YANG, Y
PA (CONN-N) CONNAUGHT LAB LTD; (AVET) AVENTIS PASTEUR LTD
CYC 95
PI WO 2001005424 A2 20010125 (200117)* EN 58 A61K039-00
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
AU 2000059586 A 20010205 (200128) A61K039-00
EP 1200122 A2 20020502 (200236) EN A61K039-116
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
US 6391313 B1 20020521 (200239) A61K039-116 <--
AU 767096 B 20031030 (200382) A61K039-00
NZ 516819 A 20031219 (200404) A61K039-00
ADT WO 2001005424 A2 WO 2000-CA811 20000711; AU 2000059586 A AU 2000-59586 20000711; EP 1200122 A2 EP 2000-945494 20000711, WO 2000-CA811 20000711; US 6391313 B1 US 1999-353617 19990715; AU 767096 B AU 2000-59586 20000711; NZ 516819 A NZ 2000-516819 20000711, WO 2000-CA811 20000711
FDT AU 2000059586 A Based on WO 2001005424; EP 1200122 A2 Based on WO 2001005424; AU 767096 B Previous Publ. AU 2000059586, Based on WO 2001005424; NZ 516819 A Based on WO 2001005424
PRAI US 1999-353617 19990715
IC ICM A61K039-00; A61K039-116
ICS A61P031-04
AB WO 200105424 A UPAB: 20010328
NOVELTY - A multivalent immunogenic composition (I) for conferring protection in a host against disease caused by both Hameophilus influenzae (HI) and Moraxella catarrhalis (MC) comprising four different antigens, of which at least one antigen is from HI and one antigen is from MC, is new. Additionally three of the antigens of (I) are adhesins, and one is from MC.

ACTIVITY - Auditory; antibacterial.

MECHANISM OF ACTION - Vaccine.

Groups of five BALB/C mice were immunized subcutaneously on days 1,29 and 43 with one of the mouse H91A Hin47 + rHMW + rHia + r200 kDa vaccines. Blood samples were taken on days 0, 14, 28, 42 and 56. Groups of five Hartley outbreed guinea pigs were immunized intramuscularly on days 1, 29 and 43 with the vaccine as described above. Blood samples were taken on days 0, 14, 28, 42 and 56. Anti-H91A Hin47, anti-rHMW, anti-rHia and anti-r200 kDa IgG antibody titers were determined by antigen specific enzyme linked immunosorbant assays (ELISAs). The results of the immunogenicity studies showed that the final bleed sera obtained from mice immunized with 0.3 mu g, or 3.0 mu g each of H91A Hin47 + rHMW + rHia with 0, 0.3, 1.0, 3.0 or 10.0 mu g of added r200 kDa, all had high antibody titers to H91A Hin47 component. The final bleed sera obtained from the mice immunized with 3.0 mu g each of H91A Hin47 + rHMW + rHia with 0, 0.3, 1.0, 3.0 or 10.0 mu g of added r200 kDa, all had high titer antibodies to the rHMW apparent enhancing or inhibiting effect on the anti-rHMW response with the addition of the r200 kDa component. Mice immunized with 0.3 mu g each of H91A Hin 47 + HMW + rHia with 0, 0.3, 1.0, 3.0 or 10.0 mu g of added r200 kDa, all had high titer antibodies to the rHia component. There was no apparent enhancing or inhibiting effect on the anti-rHia response with the addition of the r200 kDa component. The final bleed sera obtained from guinea pigs immunized with 25 mu g or 50 mu g each of H91A Hin47 + rHMW + rHia with 0, 25, 50 or 100 mu g of added r200 kDa, all had high

titer antibodies to the H91A Hin47 component. Also final bleed sera obtained from guinea pigs immunized with 25 mu g or 50 mu g each of H91A Hin47 + rHMW + rHia with 0, 25, 50 or 100 mu g of added r200 kDa, all had titer antibodies to the rHMW component. There was no apparent enhancing or inhibiting effect on the anti-rHMW response upon the addition of the r200 kDa antigen.

USE - (I) is useful for immunizing a host against infection caused by both HI and MC including otitis media (claimed).

ADVANTAGE - The multivalent vaccine can confer protection against encapsulated and unencapsulated HI and MC diseased in a safe and efficient manner.

Dwg.0/14

FS CPI

FA AB; DCN

MC CPI: B04-B04C1; B14-A01; B14-A01A; B14-N02; B14-S11B; D05-C02; D05-H07; D05-H12F

=> b home

FILE 'HOME' ENTERED AT 11:27:45 ON 16 DEC 2004

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=> d his

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L1              1 WO2000-CA811/AP,PRN
L2              1 US6391313/PN
L3              1 L1-2

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     FILE 'HCAPLUS' ENTERED AT 11:26:37 ON 16 DEC 2004
L4              TRA L3 1- RN :         4 TERMS

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L5              4 SEA L4

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L6              1 WO2000-CA811/AP,PRN
L7              1 US6391313/PN
L8              1 L6-7

     FILE 'HCAPLUS' ENTERED AT 11:46:19 ON 16 DEC 2004
                E IMMUNOSTIMULANTS/CT
                E E3+ALL
L9          16542 IMMUNOSTIMULANTS+NT/CT
                E IMMUNE ADJUVANTS/CT
                E E3+ALL
L10          9606 IMMUNE ADJUVANTS/CT OR L9 (L) ADJUV?
                E VACCINES/CT
                E E3+ALL
                E CONTRACEPTIVES/CT
                E E3+ALL
L11           564 CONTRACEPTIVES/CT (L) ?IMMUN?/BI
L12         40848 VACCINES/CT
                E IMMUNITY/CT
                E E3+ALL
L13         63934 IMMUNITY+NT/CT
                E IMMUNOTHERAPY/CT
                E E3+ALL
L14         12699 IMMUNOTHERAPY+NT/CT
                E THERAPEUTICS/CT
                E E3+ALL
                E E2
                E E3+ALL
L15         29488 THERAPY+OLD,NT/CT (L) ?IMMUN?/BI
                E RADIOTHERAPY/CT
                E E3+ALL
                E HAEMOPHILUS INFLUENZAE/CT
                E E3+ALL
                E E4+ALL
L16          7294 HAEMOPHILUS+OLD,NT/CT
                E MORAXELLA CATARRHALIS/CT
                E E3+ALL
                E E4
                E E3+ALL
L17          1861 MORAXELLA+OLD,NT/CT
                E ANTIGENS/CT
                E E3+ALL
L18             QUE ANTIGENS+NT/CT
L19            80 L16 AND L17 AND L18
                E ADHESIN/CT
                E E5+ALL
                E AGGLUTININS AND LECTINS/CT
                E E3+ALL
L20          2116 "AGGLUTININS AND LECTINS"+OLD,NT/CT (L) ?ADHESIN?/BI
L21             2 L19 AND L20
                E LOOSMORE S/AU
L22            83 E3-7
                E YANG Y/AU
L23           786 E3,E26
                E YANG YAN/AU
L24           321 E3,E31
                E YANG, YANPING/AU
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Inventor Search

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                E KLEIN ,/AU
                E KLEIN M/AU
L25          513 E3,E12
                E KLEIN MICHAEL/AU
L26          140 E3,E12
                E SASAKI K/AU
L27          702 E3-6
                E SASAKI KEN/AU
L28          889 E3-10
L29          182 (AVENTIS (1A) PASTEUR)/CS,PA
L30            3 L19 AND L22-29
L31           77 L19 NOT L30
L32           57 L31 AND L9-15
L33              QUE PY<=1999 OR AY<=1999 OR PRY<=1999 OR PD<19990715 OR PRD<199
L34           26 L32 AND L33
                SEL AN 4 15 23 24 L34
L35           22 L34 NOT E1-8
L36            1 L20 AND L35
L37           21 L35 NOT L36
                E OTITIS MEDIA/CT
                E E3+ALL
                E EAR, DISEASE/CT
                E E3=ALL
                E EAR, DISEASE/CT
                E E3+ALL
L38         2966 "EAR, DISEASE"+NT/CT
                E EAR/CT
                E E3=ALL
                E EAR/CT
                E E3+ALL
L39         1839 EAR+OLD,NT/CT (L) DISEAS?
L40         9750 EAR+OLD,NT/CT
L41          818 L38-40 (L) OTITIS(1A) MEDIA
L42            3 L35 AND L41
L43            4 L36 OR L42
L44           18 L35 NOT L43

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L46        28924 (B12-A01 OR C12-A01 OR B14-A01A OR C14-A01A)/MC OR MORAXELLA/BI
L47        28459 (B02-V02 OR C02-V02 OR B14-S11? OR C14-S11? OR D05-H07)/MC OR (
L48          989 L45 AND L46 AND L47
L49          205 (AVENTIS (1A) PASTEUR)/CS,PA
                E LOOSMORE S/AU
L50           39 E3-4
                E YANG Y/AU
L51         1938 E3,E19
                E KELIN M/AU
                E KLEIN M/AU
L52          333 E3,E13
                E SASAKI K/AU
L53         1213 E3-7
L54           29 L48 AND L49-53
L55          960 L48 NOT L54
L56            4 L55 AND ADHESIN?/BIX
L57         8186 (B14-N02 OR C14-N02 OR B12-L04 OR C12-L04)/MC
L58           40 L55 AND L57
L59            0 L58 AND ADHESIN?/BIX
L60           18 L58 NOT (PY>1999 OR PRY>1999 OR AY>1999)
                SEL AN 1-3 10 12
L61            5 E1-5 AND L60

=> b hcap
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FILE COVERS 1907 - 16 Dec 2004 VOL 141 ISS 25
FILE LAST UPDATED: 15 Dec 2004 (20041215/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d all l44 tot

L44 ANSWER 1 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:505235 HCAPLUS
DN 137:62165
ED Entered STN: 05 Jul 2002
TI Producing antibodies with attenuated bacteria with altered DNA adenine methylase activity
IN Mahan, Michael J.; Heithoff, Douglas M.; Low, David A.; Sinsheimer, Robert L.
PA USA
SO U.S. Pat. Appl. Publ., 44 pp., Cont.-in-part of U. S. Ser. No. 612,116.
CODEN: USXXCO
DT Patent
LA English
IC ICM A61K039-02
ICS C12N001-21
NCL 424200100
CC 15-2 (Immunochemistry)
Section cross-reference(s): 3, 14
FAN.CNT 7

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI US 2002086032 | A1 | 20020704 | US 2001-927896 | 20010809 <-- |
| PRAI US 1999-183043P | P | 19990202 <-- | | |
| US 1999-198250P | P | 19990505 <-- | | |
| US 2000-495614 | A2 | 20000201 | | |
| US 2000-612116 | A2 | 20000707 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---|---|---|
| US 2002086032 | ICM | A61K039-02 |
| | ICS | C12N001-21 |
| | NCL | 424200100 |
| US 2002086032 | ECLA | A61K039/002; A61K039/02; A61K039/106; A61K039/112 <-- |

AB The present invention is directed towards methods of inducing antibodies using an attenuated strain of pathogenic bacteria (e.g., Haemophilus, Escherichia coli, and/or Salmonella) having non-reverting genetic mutations relative to the wild-type organism which alter activity of DNA adenine methylase (Dam). The invention further includes compns. comprised of the attenuated bacteria and methods using these compns. to elicit an immune response and immunize a subject with highly specific antibodies. The invention also provides methods producing antibodies to heterologous antigens which the attenuated bacteria are engineered to produce.
ST antibody bacteria DNA adenine methylase; vaccine Salmonella vector DNA adenine methylase
IT **Vaccines**
(AIDS; attenuated bacteria with altered DNA adenine methylase activity for expression of heterologous antigens of HIV)
IT Antibodies and Immunoglobulins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(IgG; attenuated bacteria with altered DNA adenine methylase activity for induction of)
IT Animal virus
Arbovirus
Ascaris lumbricoides
Aspergillus fumigatus
Astrovirus
Bacillus anthracis
Blastomyces dermatitidis
Bordetella pertussis
Borrelia burgdorferi
Campylobacter
Candida
Chlamydia pneumoniae
Chlamydia trachomatis

Clostridium tetani
Coccidioides
Cryptococcus neoformans
Cytomegalovirus
Dengue virus
Entamoeba histolytica
Giardia lamblia
Helicobacter pylori
Hepatitis A virus
Hepatitis B virus
Hepatitis C virus
Hepatitis E virus
Hepatitis GB virus C/G
Hepatitis delta virus
Histoplasma capsulatum
Human coxsackievirus
Human echovirus
Human herpesvirus 2
Human herpesvirus 3
Human herpesvirus 4
Human papillomavirus
Human parainfluenza virus
Human poliovirus
Influenza virus
Japanese encephalitis virus
Leptospira
Measles virus
**Moraxella catarrhalis**
Mycobacterium leprae
Mycobacterium tuberculosis
Mycoplasma pneumoniae
Neisseria gonorrhoeae
Neisseria meningitidis
Norwalk virus
Paracoccidioides brasiliensis
Paramyxovirus
Parasite
Pinworm
Plasmodium (malarial genus)
Pseudomonas aeruginosa
Rabies virus
Respiratory syncytial virus
Rhinovirus
Rotavirus
Rubella virus
Schistosoma
Staphylococcus aureus
Staphylococcus saprophyticus
Streptococcus group A
Streptococcus group B
Taenia
Toxoplasma gondii
Treponema pallidum
Trichomonas vaginalis
Variola virus
(attenuated bacteria with altered DNA adenine methylase activity for expression of heterologous antigens of)

IT Mycosis
(attenuated bacteria with altered DNA adenine methylase activity for expression of heterologous antigens of fungi associated with)

IT Sexually transmitted diseases
(attenuated bacteria with altered DNA adenine methylase activity for expression of heterologous antigens of microorganisms associated with)

IT Gene, microbial
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(dam; of attenuated bacteria with altered DNA adenine methylase activity)

IT **Antigens**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(heterologous; expression in attenuated bacteria with altered DNA adenine methylase activity)

IT Escherichia
Eubacteria
**Haemophilus**
Salmonella
Vibrio

Yersinia
(immunostimulation by attenuated bacteria with altered DNA adenine methylase activity)

IT **Vaccines**
(of attenuated bacteria with altered DNA adenine methylase activity)

IT **Antigens**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(tumor-associated; expression in attenuated bacteria with altered DNA adenine methylase activity)

IT Bos taurus
Gallus domesticus
Human
(vaccination with attenuated bacteria expressing altered DNA adenine methylase activity and heterologous antigens)

IT Food poisoning
(vaccination with attenuated bacteria expressing altered DNA adenine methylase activity and heterologous antigens in relation to)

IT Anti-AIDS agents
(vaccines; attenuated bacteria with altered DNA adenine methylase activity for expression of heterologous antigens of HIV)

IT 69553-52-2, Dam methylase
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(immunostimulation by attenuated bacteria with altered DNA adenine methylase activity)

L44 ANSWER 2 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:488067 HCAPLUS
DN 137:62150
ED Entered STN: 28 Jun 2002
TI Bacteria with mutated DNA adenine methylase for use as vaccine and screening or development of antimicrobial or antibacterial agents
IN Mahan, Michael J.; Heithoff, Douglas M.; Low, David A.; Sinsheimer, Robert L.
PA USA
SO U.S. Pat. Appl. Publ., 44 pp., Cont.-in-part of U.S. Ser. No. 612,116.
CODEN: USXXCO
DT Patent
LA English
IC ICM A61K039-02
ICS C12N001-21; C12N015-74
NCL 424200100
CC 15-2 (Immunochemistry)
Section cross-reference(s): 1, 3, 10, 17
FAN.CNT 7

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | |
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| PI | US 2002081317 | A1 | 20020627 | US 2001-927788 | 20010809 | <-- |
| | ZA 2001005305 | A | 20020627 | ZA 2001-5305 | 20010627 | <-- |
| PRAI | US 1999-183043P | P | 19990202 | <-- | | |
| | US 1999-241951 | A | 19990202 | <-- | | |
| | US 1999-198250P | P | 19990505 | <-- | | |
| | US 1999-305603 | A | 19990505 | <-- | | |
| | US 2000-495614 | A2 | 20000201 | | | |
| | US 2000-612116 | A2 | 20000707 | | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---|---|---|
| US 2002081317 | ICM | A61K039-02 |
| | ICS | C12N001-21; C12N015-74 |
| | NCL | 424200100 |
| US 2002081317 | ECLA | A61K039/002; A61K039/02; A61K039/106; A61K039/112 <-- |

AB Immunogenic compns. are disclosed which are comprised of bacteria which are pathogenic in their native state but which are rendered non-pathogenic in a manner which alters the native level or activity of DNA adenine methylase (dam). The genome is also artificially engineered to express a heterologous antigen such as an immunogenic antigen of a virus, protozoa, parasite or fungi. The microorganism with mutated dam is also useful for identifying or developing antimicrobial or antibacterial agents.

ST DNA adenine methylase mutation microorganism vaccine; antimicrobial antibacterial vaccine antigen DNA adenine methylase mutation

IT Hepatitis
(A; bacteria with mutated DNA adenine methylase for use as vaccine and screening or development of antimicrobial and antibacterial agents)

IT Hepatitis
(B; bacteria with mutated DNA adenine methylase for use as vaccine and

screening or development of antimicrobial and antibacterial agents)
IT Hepatitis
(C; bacteria with mutated DNA adenine methylase for use as vaccine and screening or development of antimicrobial and antibacterial agents)
IT Hepatitis
(D; bacteria with mutated DNA adenine methylase for use as vaccine and screening or development of antimicrobial and antibacterial agents)
IT Hepatitis
(E; bacteria with mutated DNA adenine methylase for use as vaccine and screening or development of antimicrobial and antibacterial agents)
IT Antibodies and Immunoglobulins
RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(IgG; bacteria with mutated DNA adenine methylase for use as vaccine and screening or development of antimicrobial and antibacterial agents)
IT **Haemophilus influenzae**
(NT; bacteria with mutated DNA adenine methylase for use as vaccine and screening or development of antimicrobial and antibacterial agents)
IT Toxins
RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Shiga; bacteria with mutated DNA adenine methylase for use as vaccine and screening or development of antimicrobial and antibacterial agents)
IT Drug screening
(antibacterial; bacteria with mutated DNA adenine methylase for use as vaccine and screening or development of antimicrobial and antibacterial agents)
IT Fungi
Parasite
Protozoa
Virus
(antigen; bacteria with mutated DNA adenine methylase for use as vaccine and screening or development of antimicrobial and antibacterial agents)
IT Arbovirus
Ascaris lumbricoides
Aspergillus fumigatus
Astrovirus
Bacillus anthracis
Blastomyces dermatitidis
Bordetella pertussis
Borrelia burgdorferi
Bos taurus
Campylobacter
Candida
Chlamydia pneumoniae
Chlamydia trachomatis
Coccidioides immitis
Cryptococcus neoformans
Cytomegalovirus
Dengue virus
Drug delivery systems
Entamoeba histolytica
Eubacteria
Food poisoning
Gallus domesticus
Genetic vectors
Giardia lamblia
Helicobacter pylori
Hepatitis GB virus C/G
Hepatitis virus
Herpesviridae
Histoplasma capsulatum
Human
Human coxsackievirus
Human echovirus
Human herpesvirus
Human herpesvirus 1
Human herpesvirus 2
Human herpesvirus 3
Human herpesvirus 4
Human immunodeficiency virus
Human papillomavirus
Human parainfluenza virus
Human poliovirus
Influenza virus

Japanese encephalitis virus
Leptospira
Mammalia
Measles virus
Molecular cloning
**Moraxella catarrhalis**
Mutagenesis
Mycobacterium leprae
Mycobacterium tuberculosis
Mycoplasma pneumoniae
Mycosis
Neisseria gonorrhoeae
Neisseria meningitidis
Norwalk virus
Paracoccidioides brasiliensis
Paramyxovirus
Pathogen
Pathogenic bacteria
Pinworm
Plasmodium (malarial genus)
Pseudomonas aeruginosa
Rabies virus
Respiratory syncytial virus
Rhinovirus
Rodentia
Rotavirus
Rubella virus
Salmonella
Salmonella enteritidis
Salmonella typhi
Salmonella typhimurium
Schistosoma
Sexually transmitted diseases
Shigella
Staphylococcus saprophyticus
Streptococcus group A
Streptococcus group B
Taenia
Tetanus
Toxoplasma gondii
Treponema pallidum
Trichomonas vaginalis
Typhoid fever
**Vaccines**
Vibrio
Vibrio cholerae
Yersinia
Yersinia pseudotuberculosis
(bacteria with mutated DNA adenine methylase for use as vaccine and screening or development of antimicrobial and antibacterial agents)

IT Antibodies and Immunoglobulins
**Antigens**
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(bacteria with mutated DNA adenine methylase for use as vaccine and screening or development of antimicrobial and antibacterial agents)

IT Gene, microbial
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(bacteria with mutated DNA adenine methylase for use as vaccine and screening or development of antimicrobial and antibacterial agents)

IT Infection
(bacterial; bacteria with mutated DNA adenine methylase for use as vaccine and screening or development of antimicrobial and antibacterial agents)

IT Antibacterial agents
Antimicrobial agents
(development; bacteria with mutated DNA adenine methylase for use as vaccine and screening or development of antimicrobial and antibacterial agents)

IT **Immunity**
(disorder, antigen; bacteria with mutated DNA adenine methylase for use as vaccine and screening or development of antimicrobial and antibacterial agents)

IT Escherichia coli

(enterotoxigenic; bacteria with mutated DNA adenine methylase for use as vaccine and screening or development of antimicrobial and antibacterial agents)
IT Respiratory tract, disease
Urinary tract, disease
(infection; bacteria with mutated DNA adenine methylase for use as vaccine and screening or development of antimicrobial and antibacterial agents)
IT Intestinal bacteria
(pathogenic, infection; bacteria with mutated DNA adenine methylase for use as vaccine and screening or development of antimicrobial and antibacterial agents)
IT **Antigens**
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(tumor-associated; bacteria with mutated DNA adenine methylase for use as vaccine and screening or development of antimicrobial and antibacterial agents)
IT **Haemophilus influenzae**
(type b; bacteria with mutated DNA adenine methylase for use as vaccine and screening or development of antimicrobial and antibacterial agents)
IT Escherichia coli
(uropathogenic; bacteria with mutated DNA adenine methylase for use as vaccine and screening or development of antimicrobial and antibacterial agents)
IT Infection
(variola; bacteria with mutated DNA adenine methylase for use as vaccine and screening or development of antimicrobial and antibacterial agents)
IT Infection
(vector-born; bacteria with mutated DNA adenine methylase for use as vaccine and screening or development of antimicrobial and antibacterial agents)
IT Infection
(viral; bacteria with mutated DNA adenine methylase for use as vaccine and screening or development of antimicrobial and antibacterial agents)
IT 69553-52-2, Dam methylase
RL: BSU (Biological study, unclassified); REM (Removal or disposal); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(mutation; bacteria with mutated DNA adenine methylase for use as vaccine and screening or development of antimicrobial and antibacterial agents)
IT 439624-92-7 439624-93-8 439624-94-9 439624-95-0
RL: PRP (Properties)
(unclaimed sequence; bacteria with mutated DNA adenine methylase for use as vaccine and screening or development of antimicrobial or antibacterial agents)

L44 ANSWER 3 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:107146 HCAPLUS
DN 136:166052
ED Entered STN: 10 Feb 2002
TI Vaccine composition
IN Berthet, Francois-Xavier Jacques; Dalemans, Wilfried; Denoel, Philippe; Dequesne, Guy; Feron, Christiane; Garcon, Nathalie; Lobet, Yves; Poolman, Jan; Thiry, Georges; Thonnard, Joelle; Voet, Pierre
PA Smithkline Beecham Biologicals SA, Belg.
SO PCT Int. Appl., 125 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K039-00
CC 15-2 (Immunochemistry)
Section cross-reference(s): 3
FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 2002009746 | A2 | 20020207 | WO 2001-EP8857 | 20010731 |
| | WO 2002009746 | A3 | 20020613 | | |
| | WO 2002009746 | C1 | 20021114 | | |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

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            DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
            BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
    EP 1208214          A2    20020529    EP 2000-956369        20000731 <--
        R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO, MK, CY, AL
    CA 2425037          AA    20020207    CA 2001-2425037       20010731
    AU 2001085856       A5    20020213    AU 2001-85856         20010731
    EP 1307224          A2    20030507    EP 2001-965152        20010731
        R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
    US 2004126389       A1    20040701    US 2003-343561        20030915
PRAI EP 2000-956369     A     20000731
    GB 2001-3170        A     20010208
    GB 1999-18319       A     19990803  <--
    WO 2000-EP7424      W     20000731
    WO 2001-EP8857      W     20010731
CLASS
 PATENT NO.      CLASS  PATENT FAMILY CLASSIFICATION CODES
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 WO 2002009746   ICM    A61K039-00
 US 2004126389   ECLA   A61K039/02; A61K039/39
AB  The present invention relates to the field of vaccine formulation,
    particularly the field of novel adjuvant compns. comprising outer membrane
    vesicles (or blebs), and advantageous methods of detoxifying these
    compns., and advantageous methods of use of such adjuvants.  The novel
    adjuvant for Gram-neg. bacterial vaccine is a capsular polysaccharide or
    detoxified lipid A portion of LPS derived from engineered Neisseria
    meningitidis serogroup A, B, Y or W; Hemophilus influenzae; Streptococcus
    pneumoniae; or Moraxella catarrhalis.  These engineered bacteria have
    reduced or switched off expression of one or more gene selected from htrB,
    msbB, .pxK, pmrA, pmrB, pmrE, pmrF, galE, siaA, siaB, siaC, siaD, ctrA,
    ctrB, ctrC and ctrD.  Vaccines comprising the adjuvant and
    pathogen-derived antigen is especially useful for protecting elderly patients
    against the pathogen.
ST  vaccine adjuvant outer membrane vesicle bleb; Gram neg bacteria bleb prepn
    adjuvant; Neisseria meningitidis bleb detoxified lipid A; Streptococcus
    pneumoniae Hemophilus influenzae capsular polysaccharide
IT  Gene, microbial
    RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL
    (Biological study); PROC (Process)
       (D15; outer membrane vesicles or detoxified lipid A as adjuvant for
       Gram-neg. bacterial vaccines)
IT  Proteins
    RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
    THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
    (Uses)
       (D; outer membrane vesicles or detoxified lipid A as adjuvant for
       Gram-neg. bacterial vaccines)
IT  Proteins
    RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
    (Biological study); USES (Uses)
       (OMP (outer membrane protein); outer membrane vesicles or detoxified
       lipid A as adjuvant for Gram-neg. bacterial vaccines)
IT  Immunostimulants
       (adjuvants; outer membrane vesicles or detoxified lipid A as
       adjuvant for Gram-neg. bacterial vaccines)
IT  Organelle
       (bleb; outer membrane vesicles or detoxified lipid A as adjuvant for
       Gram-neg. bacterial vaccines)
IT  Glycolipids
    Lipopolysaccharides
    Polysaccharides, biological studies
    RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
    (Biological study); USES (Uses)
       (capsular; outer membrane vesicles or detoxified lipid A as adjuvant
       for Gram-neg. bacterial vaccines)
IT  Drug delivery systems
       (carriers; outer membrane vesicles or detoxified lipid A as adjuvant
       for Gram-neg. bacterial vaccines)
IT  Gene, microbial
    RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL
    (Biological study); PROC (Process)
       (cps; outer membrane vesicles or detoxified lipid A as adjuvant for
       Gram-neg. bacterial vaccines)
IT  Gene, microbial
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RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(ctrA; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(ctrB; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(ctrC; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(ctrD; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT Aging, animal
(elderly; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(galE; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT Proteins
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation)
(green fluorescent; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT Neisseria meningitidis
(group A; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT Neisseria meningitidis
(group B; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT Neisseria meningitidis
(group W; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT Neisseria meningitidis
(group Y; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(hsf; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(htrB; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(lpxK; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(msbB; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(nspA; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(omp85; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT DNA sequences
Detergents

Gram-negative bacteria
**Haemophilus influenzae**
**Moraxella catarrhalis**
Neisseria meningitidis
Streptococcus pneumoniae
**Vaccines**
(outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT Promoter (genetic element)
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT **Antigens**
Polysaccharides, biological studies
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT Cell wall
(outer membrane, vesicles; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(pilQ; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(pldA; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(pmrA; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(pmrB; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(pmrE; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(pmrF; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT Infection
(pneumococcal; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(porA; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(porB; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(siaA; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(siaB; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL

(Biological study); PROC (Process)
(siaC; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(siaD; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(tbpA; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT **Haemophilus influenzae**
(type b; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT 1404-24-6, Polymyxin A
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(chimeric; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT 397430-36-3, DNA (Synthetic plasmid vector CMK(+))
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(nucleotide sequence; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT 397430-37-4 397430-38-5 397430-39-6 397430-40-9 397430-41-0
397430-42-1
RL: BSU (Biological study, unclassified); PRP (Properties); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(nucleotide sequence; outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT 83-44-3
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(outer membrane vesicles or detoxified lipid A as adjuvant for Gram-neg. bacterial vaccines)

IT 397431-26-4, 4: PN: WO0209746 SEQID: 4 unclaimed DNA 397431-27-5, 5: PN: WO0209746 SEQID: 5 unclaimed DNA 397431-28-6, 6: PN: WO0209746 SEQID: 6 unclaimed DNA 397431-29-7, 8: PN: WO0209746 SEQID: 8 unclaimed DNA
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397432-67-6 397432-68-7 397432-69-8 397432-70-1 397432-71-2
397432-72-3 397432-73-4 397432-74-5
RL: PRP (Properties)
(unclaimed nucleotide sequence; vaccine composition)

L44 ANSWER 4 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:688113 HCAPLUS
DN 133:265640

ED Entered STN: 29 Sep 2000
TI Bacterial polysaccharide antigen vaccine
IN Capiau, Carine; Deschamps, Marguerite; Desmons, Pierre Michel; Laferriere, Craig Antony Joseph; Poolman, Jan; Prieels, Jean-paul
PA Smithkline Beecham Biologicals SA, Belg.
SO PCT Int. Appl., 79 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K039-385
ICS A61K039-39; A61K039-02; A61K039-005; A61K039-116; A61P031-04
CC 15-2 (Immunochemistry)
Section cross-reference(s): 3
FAN.CNT 5

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI WO 2000056360 | A2 | 20000928 | WO 2000-EP2468 | 20000317 <-- |
| WO 2000056360 | A3 | 20010125 | | |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| CA 2366314 | AA | 20000928 | CA 2000-2366314 | 20000317 <-- |
| NZ 513841 | A | 20010928 | NZ 2000-513841 | 20000317 <-- |
| EP 1163000 | A2 | 20011219 | EP 2000-912626 | 20000317 <-- |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| TR 200102739 | T2 | 20011221 | TR 2001-200102739 | 20000317 <-- |
| BR 2000009163 | A | 20011226 | BR 2000-9163 | 20000317 <-- |
| TR 200102735 | T2 | 20020422 | TR 2001-200102735 | 20000317 <-- |
| TR 200102736 | T2 | 20020422 | TR 2001-200102736 | 20000317 <-- |
| AU 750913 | B2 | 20020801 | AU 2000-34307 | 20000317 <-- |
| AU 2000034307 | A5 | 20001009 | | |
| JP 2002540075 | T2 | 20021126 | JP 2000-606264 | 20000317 <-- |
| NZ 513840 | A | 20040227 | NZ 2000-513840 | 20000317 <-- |
| NZ 513842 | A | 20040528 | NZ 2001-513842 | 20010317 <-- |
| NO 2001004325 | A | 20011114 | NO 2001-4325 | 20010905 <-- |
| ZA 2001007638 | A | 20020611 | ZA 2001-7638 | 20010917 <-- |
| ZA 2001007637 | A | 20020621 | ZA 2001-7637 | 20010917 <-- |
| ZA 2001007640 | A | 20020911 | ZA 2001-7640 | 20010917 <-- |
| PRAI GB 1999-6437 | A | 19990319 <-- | | |
| GB 1999-9077 | A | 19990420 <-- | | |
| GB 1999-9466 | A | 19990423 <-- | | |
| GB 1999-16677 | A | 19990715 <-- | | |
| WO 2000-EP2468 | W | 20000317 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---|---|---|
| WO 2000056360 | ICM | A61K039-385 |
| | ICS | A61K039-39; A61K039-02; A61K039-005; A61K039-116; A61P031-04 |

AB The present invention relates to the field of bacterial polysaccharide antigen vaccines. In particular, the present invention relates to bacterial polysaccharides conjugated to protein D from H. influenzae.
ST bacteria polysaccharide antigen vaccine protein D
IT Neisseria meningitidis
(C; bacterial polysaccharide antigen vaccine)
IT Proteins, specific or class
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(CbpA or choline-binding protein A; bacterial polysaccharide antigen vaccine)
IT Proteins, specific or class
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(D; bacterial polysaccharide antigen vaccine)
IT Proteins, specific or class
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(PsaA; bacterial polysaccharide antigen vaccine)
IT Proteins, specific or class
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(PspA (pneumococcal surface protein A); bacterial polysaccharide antigen vaccine)

IT Proteins, specific or class
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(PspC; bacterial polysaccharide antigen vaccine)
IT **Immunity**
(Th1 adjuvant; bacterial polysaccharide antigen vaccine)
IT Polysaccharides, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Vi; bacterial polysaccharide antigen vaccine)
IT Neisseria meningitidis
(Y; bacterial polysaccharide antigen vaccine)
IT **Immunostimulants**
(**adjuvants**, Th1; bacterial polysaccharide antigen vaccine)
IT **Haemophilus influenzae**
**Immunostimulants**
Pathogen
Salmonella typhi
Susceptibility (genetic)
Trypanosoma cruzi
**Vaccines**
(bacterial polysaccharide antigen vaccine)
IT Lipopolysaccharides
Saponins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(bacterial polysaccharide antigen vaccine)
IT Infection
(bacterial; bacterial polysaccharide antigen vaccine)
IT Polysaccharides, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(capsular; bacterial polysaccharide antigen vaccine)
IT **Antigens**
Polysaccharides, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugates; bacterial polysaccharide antigen vaccine)
IT Glycolipoproteins
Glycolipoproteins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(glycan-containing, phospho-; bacterial polysaccharide antigen vaccine)
IT Neisseria meningitidis
(group B polysaccharide; bacterial polysaccharide antigen vaccine)
IT Oligosaccharides, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lipopeptidophospho; bacterial polysaccharide antigen vaccine)
IT **Moraxella catarrhalis**
Shigella sonnei
(lipopolysaccharide; bacterial polysaccharide antigen vaccine)
IT Mucopolysaccharides, biological studies
Mucopolysaccharides, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lipoproteoglycans, phospho-; bacterial polysaccharide antigen vaccine)
IT Proteins, specific or class
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(outer surface proteins; bacterial polysaccharide antigen vaccine)
IT Lipopeptides
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(phosphoglycan; bacterial polysaccharide antigen vaccine)
IT Hemolysins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pneumolysins; bacterial polysaccharide antigen vaccine)
IT Bacteria (Eubacteria)
Cryptococcus neoformans
Mycobacterium
Neisseria meningitidis
Staphylococcus aureus
Streptococcus agalactiae
Streptococcus pneumoniae
(polysaccharide; bacterial polysaccharide antigen vaccine)
IT Proteins, specific or class
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(secreted; bacterial polysaccharide antigen vaccine)
IT Oligonucleotides
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(stimulatory CpG-containing; bacterial polysaccharide antigen vaccine)
IT Toxoids
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(tetanus; bacterial polysaccharide antigen vaccine)
IT 7784-30-7, Aluminum phosphate 9001-50-7, Glyceraldehyde-3-phosphate

dehydrogenase 128478-31-9
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(bacterial polysaccharide antigen vaccine)

L44 ANSWER 5 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:68366 HCAPLUS
DN 132:127726
ED Entered STN: 28 Jan 2000
TI Adjuvant and vaccine compositions containing monophosphoryl lipid A
IN Laposta, Vincent James; Eldridge, John Hayward
PA American Cyanamid Company, USA
SO PCT Int. Appl., 35 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K039-00
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 15
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | |
|---|---|---|---|---|---|---|
| PI | WO 2000003744 | A2 | 20000127 | WO 1999-US15942 | 19990713 | <-- |
| | WO 2000003744 | A3 | 20000427 | | | |
| | W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | | |
| | RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | | |
| | CA 2333578 | AA | 20000127 | CA 1999-2333578 | 19990713 | <-- |
| | AU 9951018 | A1 | 20000207 | AU 1999-51018 | 19990713 | <-- |
| | AU 763770 | B2 | 20030731 | | | |
| | BR 9912067 | A | 20010410 | BR 1999-12067 | 19990713 | <-- |
| | EP 1096954 | A2 | 20010509 | EP 1999-935566 | 19990713 | <-- |
| | EP 1096954 | B1 | 20041006 | | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | | |
| | US 6306404 | B1 | 20011023 | US 1999-352526 | 19990713 | <-- |
| | JP 2002520373 | T2 | 20020709 | JP 2000-559878 | 19990713 | <-- |
| | US 2002025330 | A1 | 20020228 | US 2001-943028 | 20010830 | <-- |
| | US 6635261 | B2 | 20031021 | | | |
| PRAI | US 1998-115392 | A | 19980714 | <-- | | |
| | US 1998-155270P | P | 19980714 | <-- | | |
| | US 1999-352526 | A3 | 19990713 | <-- | | |
| | WO 1999-US15942 | W | 19990713 | <-- | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES | |
|---|---|---|---|
| WO 2000003744 | ICM | A61K039-00 | |
| US 2002025330 | ECLA | A61K039/39 | <-- |

AB The invention pertains to adjuvant and vaccine compns. of monophosphoryl lipid A, sugar, and optionally an amine-based surfactant, which when frozen and thawed or lyophilized and reconstituted reform a colloidal suspension having a light transmission of greater than or equal to 88 % as measured spectrophotometrically.
ST vaccine adjuvant formulation monophosphoryl lipid A
IT Chlamydia
Colloids
**Haemophilus influenzae**
Helicobacter pylori
Human herpesvirus
Human immunodeficiency virus
Human papillomavirus
Human parainfluenza virus
Influenza virus
Measles virus
**Moraxella catarrhalis**
Neisseria gonorrhoeae
Neisseria meningitidis
Norwalk virus
Optical absorption
Respiratory syncytial virus
Rotavirus
Salmonella typhi

Solvents
Spectrophotometry
Streptococcus group A
Streptococcus group B
Streptococcus pneumoniae
Turbidimetry
**Vaccines**
(adjuvant and vaccine compns. containing monophosphoryl lipid A)

IT **Allergens**
**Antigens**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(adjuvant and vaccine compns. containing monophosphoryl lipid A)

IT Carbohydrates, biological studies
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(adjuvant and vaccine compns. containing monophosphoryl lipid A)

IT **Immunostimulants**
(**adjuvants; adjuvant** and vaccine compns. containing monophosphoryl lipid A)

IT Surfactants
(amine-based; adjuvant and vaccine compns. containing monophosphoryl lipid A)

IT Bacteria (Eubacteria)
Neoplasm
Parasite
Virus
(antigens of; adjuvant and vaccine compns. containing monophosphoryl lipid A)

IT Polysaccharides, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(capsular; adjuvant and vaccine compns. containing monophosphoryl lipid A)

IT Drug delivery systems
(carriers; adjuvant and vaccine compns. containing monophosphoryl lipid A)

IT Physiological saline solutions
(diluent; adjuvant and vaccine compns. containing monophosphoryl lipid A)

IT Drug delivery systems
(freeze-dried; adjuvant and vaccine compns. containing monophosphoryl lipid A)

IT Lipopolysaccharides
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(of Salmonella minnesota R595; adjuvant and vaccine compns. containing monophosphoryl lipid A)

IT 7784-30-7, Aluminum phosphate 220048-47-5
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(adjuvant and vaccine compns. containing monophosphoryl lipid A)

IT 50-99-7, Dextrose, biological studies 57-48-7, D-Fructose, biological studies 57-50-1, biological studies 59-23-4, Galactose, biological studies 63-42-3, Lactose 69-79-4, Maltose 99-20-7, Trehalose 499-40-1, Isomaltose 3458-28-4, Mannose
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(adjuvant and vaccine compns. containing monophosphoryl lipid A)

IT 7732-18-5, Water, uses
RL: NUU (Other use, unclassified); USES (Uses)
(diluent; adjuvant and vaccine compns. containing monophosphoryl lipid A)

IT 102-71-6, biological studies 121-44-8, biological studies
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(surfactant; adjuvant and vaccine compns. containing monophosphoryl lipid A)

L44 ANSWER 6 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:626070 HCAPLUS
DN 131:262583
ED Entered STN: 01 Oct 1999
TI Haemophilus influenzae B-DTPa combination vaccine
IN Artois, Claude; De Heyder, Koen; Desmons, Pierre; Garcon, Nathalie;

Mainil, Roland
PA Smithkline Beecham Biologicals SA, Belg.
SO PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K039-295
ICS A61K039-39; A61K039-05; A61K039-08; A61K039-09; A61K039-095; A61K039-10; A61K039-102; A61K039-13; A61K039-29
CC 63-3 (Pharmaceuticals)
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | |
|---|---|---|---|---|---|---|
| PI | WO 9948525 | A1 | 19990930 | WO 1999-EP1959 | 19990322 | <-- |
| | W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | | |
| | RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | | |
| | CA 2325436 | AA | 19990930 | CA 1999-2325436 | 19990322 | <-- |
| | AU 9934172 | A1 | 19991018 | AU 1999-34172 | 19990322 | <-- |
| | AU 735619 | B2 | 20010712 | | | |
| | BR 9909037 | A | 20001205 | BR 1999-9037 | 19990322 | <-- |
| | TR 200002737 | T2 | 20001221 | TR 2000-200002737 | 19990322 | <-- |
| | EP 1066053 | A1 | 20010110 | EP 1999-915692 | 19990322 | <-- |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI | | | | | |
| | JP 2002507581 | T2 | 20020312 | JP 2000-537572 | 19990322 | <-- |
| | NZ 506604 | A | 20030228 | NZ 1999-506604 | 19990322 | <-- |
| | ZA 2000004956 | A | 20020108 | ZA 2000-4956 | 20000918 | <-- |
| | NO 2000004758 | A | 20001108 | NO 2000-4758 | 20000922 | <-- |
| | US 2003022304 | A1 | 20030130 | US 2002-217572 | 20020813 | <-- |
| PRAI | GB 1998-6456 | A | 19980325 | <-- | | |
| | WO 1999-EP1959 | W | 19990322 | <-- | | |
| | US 2000-647032 | B1 | 20001031 | | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---|---|---|
| WO 9948525 | ICM | A61K039-295 |
| | ICS | A61K039-39; A61K039-05; A61K039-08; A61K039-09; A61K039-095; A61K039-10; A61K039-102; A61K039-13; A61K039-29 |
| US 2003022304 | ECLA | A61K039/05; A61K039/08; A61K039/09; A61K039/095; A61K039/10; A61K039/102; A61K039/13; A61K039/29; A61K039/39 <-- |

AB This invention relates to a general method by which either extemporaneously prepared or liquid Haemophilus influenzae B (Hib)/DTPa combination vaccines can be made in order to avoid Hib interference while being able to maintain the maximum, stable adsorption of each antigen onto the aluminum-based adjuvant on which it is most immunogenic. In so doing, pertussis antigens in combination vaccines of the present invention are stably retained in their most potent form. Examples are given for the vaccines using Al hydroxide or Al phosphate as adjuvants.

ST vaccine Haemophilus diphtheria tetanus pertussis
IT **Vaccines**
(Haemophilus influenzae B-DTPa combination vaccine)
IT **Antigens**
Polysaccharides, biological studies
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(Haemophilus influenzae B-DTPa combination vaccine)
IT **Immunostimulants**
(**adjuvants**; Haemophilus influenzae B-DTPa combination vaccine)
IT Hepatitis A virus
Human poliovirus
(antigens; Haemophilus influenzae B-DTPa combination vaccine)
IT Streptococcus pneumoniae
(capsular polysaccharide and proteins; Haemophilus influenzae B-DTPa combination vaccine)
IT Toxoids
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(diphtheria; Haemophilus influenzae B-DTPa combination vaccine)
IT Neisseria meningitidis
(group A, capsular polysaccharide; Haemophilus influenzae B-DTPa combination vaccine)
IT Neisseria meningitidis
(group C, capsular polysaccharide; Haemophilus influenzae B-DTPa combination vaccine)
IT **Antigens**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hepatitis B surface; Haemophilus influenzae B-DTPa combination vaccine)
IT **Moraxella catarrhalis**
(outer membrane proteins; Haemophilus influenzae B-DTPa combination vaccine)
IT Toxoids
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pertussis; Haemophilus influenzae B-DTPa combination vaccine)
IT Toxoids
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(tetanus; Haemophilus influenzae B-DTPa combination vaccine)
IT **Haemophilus influenzae**
(type b; Haemophilus influenzae B-DTPa combination vaccine)
IT 7784-30-7, Aluminum phosphate 21645-51-2, Aluminum hydroxide, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Haemophilus influenzae B-DTPa combination vaccine)
RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Corbel, M; BIOLOGICALS 1994, V22(4), P353 HCAPLUS
(2) Corbel, M; BIOLOGICALS 1997, V25/3, P351
(3) Ellis, R; VACCINE 1999, V17(13-14), P1635 MEDLINE
(4) Slaoui Moncef Mohamed; WO 9746255 A 1997 HCAPLUS
(5) Smithkline Beecham Biolog; WO 9324148 A 1993 HCAPLUS
(6) Smithkline Beecham Biolog; WO 9700697 A 1997 HCAPLUS

L44 ANSWER 7 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:597423 HCAPLUS
DN 131:213104
ED Entered STN: 22 Sep 1999
TI Antigenic conjugates of conserved lipopolysaccharides of gram negative bacteria
IN Arumugham, Rasappa G.; Fortuna-Nevin, Maria; Apicella, Michael A.; Gibson, Bradford W.
PA American Cyanamid Company, USA
SO Eur. Pat. Appl., 18 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM A61K039-385
ICI A61K039-02, A61K039-095
CC 15-2 (Immunochemistry)
Section cross-reference(s): 14, 63
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI EP 941738 | A1 | 19990915 | EP 1999-301747 | 19990309 <-- |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| CA 2264970 | AA | 19990910 | CA 1999-2264970 | 19990308 <-- |
| AU 9919540 | A1 | 19990923 | AU 1999-19540 | 19990309 <-- |
| AU 766184 | B2 | 20031009 | | |
| JP 11322793 | A2 | 19991124 | JP 1999-61354 | 19990309 <-- |
| BR 9902008 | A | 20000509 | BR 1999-2008 | 19990309 <-- |
| PRAI US 1998-37529 | A | 19980310 <-- | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---|---|---|
| EP 941738 | ICM | A61K039-385 |
| | ICI | A61K039-02, A61K039-095 |

AB Antigenic conjugates are provided which comprise a carrier protein covalently bonded to the conserved portion of a lipopolysaccharide of a gram neg. bacteria, wherein said conserved portion of the lipopolysaccharide comprises the inner core and lipid A portions of said lipopolysaccharide, said conjugate eliciting a cross reactive immune response against heterologous strains of said gram neg. bacteria. The carrier protein is selected from CRM197, tetanus toxin, diphtheria toxin,

pseudomonas exotoxin A, cholera toxin, group A streptococcal toxin, pneumolysin of Streptococcus pneumoniae, filamentous hemagglutinin (FHA), FHA of Bordetella pertussis, pili or pilins of Neisseria gonorrhoeae or meningitidis, outer membrane proteins of Neisseria meningitidis, C5A peptidase of Streptococcus and surface protein of Moraxella catarrhalis.

ST gram neg bacteria lipopolysaccharide carrier protein; vaccine lipopolysaccharide carrier conjugate immune adjuvant

IT Hemagglutinins
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(FHA (filamentous hemagglutinin); conjugates of conserved lipopolysaccharides of gram neg. bacteria and carrier proteins for eliciting cross reactive immune response against heterologous strains of gram neg. bacteria)

IT Proteins, specific or class
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(OMP (outer membrane protein), carrier; conjugates of conserved lipopolysaccharides of gram neg. bacteria and carrier proteins for eliciting cross reactive immune response against heterologous strains of gram neg. bacteria)

IT Proteins, specific or class
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(SU (surface), carrier; conjugates of conserved lipopolysaccharides of gram neg. bacteria and carrier proteins for eliciting cross reactive immune response against heterologous strains of gram neg. bacteria)

IT **Immunostimulants**
(**adjuvants**; conjugates of conserved lipopolysaccharides of gram neg. bacteria and carrier proteins for eliciting cross reactive immune response against heterologous strains of gram neg. bacteria)

IT Toxins
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(bacterial; conjugates of conserved lipopolysaccharides of gram neg. bacteria and carrier proteins for eliciting cross reactive immune response against heterologous strains of gram neg. bacteria)

IT Streptococcus
(carrier; conjugates of conserved lipopolysaccharides of gram neg. bacteria and carrier proteins for eliciting cross reactive immune response against heterologous strains of gram neg. bacteria)

IT Toxins
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(cholera; conjugates of conserved lipopolysaccharides of gram neg. bacteria and carrier proteins for eliciting cross reactive immune response against heterologous strains of gram neg. bacteria)

IT Bordetella
Bordetella pertussis
Chlamydia
Escherichia coli
Gram-negative bacteria
**Haemophilus**
**Haemophilus ducreyi**
**Haemophilus influenzae**
Helicobacter pylori
Klebsiella
**Moraxella catarrhalis**
Neisseria
Neisseria gonorrhoeae
Neisseria meningitidis
Pilus
Proteus mirabilis
Pseudomonas
Pseudomonas aeruginosa
Salmonella
Salmonella minnesota
Salmonella typhimurium
Shigella
Streptococcus pneumoniae
**Vaccines**
Vibrio cholerae
(conjugates of conserved lipopolysaccharides of gram neg. bacteria and carrier proteins for eliciting cross reactive immune response against heterologous strains of gram neg. bacteria)

IT Lipid A

O antigen
Pilins
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugates of conserved lipopolysaccharides of gram neg. bacteria and carrier proteins for eliciting cross reactive immune response against heterologous strains of gram neg. bacteria)

IT Lipopolysaccharides
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugates of conserved lipopolysaccharides of gram neg. bacteria and carrier proteins for eliciting cross reactive immune response against heterologous strains of gram neg. bacteria)

IT Carriers
(conjugates; conjugates of conserved lipopolysaccharides of gram neg. bacteria and carrier proteins for eliciting cross reactive immune response against heterologous strains of gram neg. bacteria)

IT Antigens
Proteins, specific or class
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugates; conjugates of conserved lipopolysaccharides of gram neg. bacteria and carrier proteins for eliciting cross reactive immune response against heterologous strains of gram neg. bacteria)

IT Toxins
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(diphtheria, carrier; conjugates of conserved lipopolysaccharides of gram neg. bacteria and carrier proteins for eliciting cross reactive immune response against heterologous strains of gram neg. bacteria)

IT Toxins
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(exotoxin A, carrier; conjugates of conserved lipopolysaccharides of gram neg. bacteria and carrier proteins for eliciting cross reactive immune response against heterologous strains of gram neg. bacteria)

IT Drug delivery systems
(injections, i.m.; conjugates of conserved lipopolysaccharides of gram neg. bacteria and carrier proteins for eliciting cross reactive immune response against heterologous strains of gram neg. bacteria)

IT Drug delivery systems
(injections, i.v.; conjugates of conserved lipopolysaccharides of gram neg. bacteria and carrier proteins for eliciting cross reactive immune response against heterologous strains of gram neg. bacteria)

IT Drug delivery systems
(injections, s.c.; conjugates of conserved lipopolysaccharides of gram neg. bacteria and carrier proteins for eliciting cross reactive immune response against heterologous strains of gram neg. bacteria)

IT Drug delivery systems
(intradermal; conjugates of conserved lipopolysaccharides of gram neg. bacteria and carrier proteins for eliciting cross reactive immune response against heterologous strains of gram neg. bacteria)

IT Drug delivery systems
(nasal, intra-; conjugates of conserved lipopolysaccharides of gram neg. bacteria and carrier proteins for eliciting cross reactive immune response against heterologous strains of gram neg. bacteria)

IT Drug delivery systems
(ophthalmic; conjugates of conserved lipopolysaccharides of gram neg. bacteria and carrier proteins for eliciting cross reactive immune response against heterologous strains of gram neg. bacteria)

IT Drug delivery systems
(oral; conjugates of conserved lipopolysaccharides of gram neg. bacteria and carrier proteins for eliciting cross reactive immune response against heterologous strains of gram neg. bacteria)

IT Hemolysins
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pneumolysins, carrier; conjugates of conserved lipopolysaccharides of gram neg. bacteria and carrier proteins for eliciting cross reactive immune response against heterologous strains of gram neg. bacteria)

IT Drug delivery systems
(solns., i.p.; conjugates of conserved lipopolysaccharides of gram neg. bacteria and carrier proteins for eliciting cross reactive immune response against heterologous strains of gram neg. bacteria)

IT Toxins
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(tetanus, carrier; conjugates of conserved lipopolysaccharides of gram

neg. bacteria and carrier proteins for eliciting cross reactive immune response against heterologous strains of gram neg. bacteria)
IT Streptococcus group A
(toxin; conjugates of conserved lipopolysaccharides of gram neg. bacteria and carrier proteins for eliciting cross reactive immune response against heterologous strains of gram neg. bacteria)
IT Drug delivery systems
(vaginal; conjugates of conserved lipopolysaccharides of gram neg. bacteria and carrier proteins for eliciting cross reactive immune response against heterologous strains of gram neg. bacteria)
IT 100179-39-3, C5A Peptidase
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carrier; conjugates of conserved lipopolysaccharides of gram neg. bacteria and carrier proteins for eliciting cross reactive immune response against heterologous strains of gram neg. bacteria)
IT 51-85-4, Cystamine 1071-93-8, Adipic acid dihydrazide 1892-57-5, EDAC 6539-14-6, Traut's reagent 42014-51-7, Bromoacetic acid N-hydroxysuccinimide ester 57757-57-0 64202-52-4 64987-85-5, SMCC 68181-17-9, SPDP 72252-96-1, SIAB 76931-93-6, SATA 79886-55-8, Succinimidyl 4-(p-maleimidophenyl)butyrate 150205-95-1 150244-18-1 158913-22-5
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(linker; conjugates of conserved lipopolysaccharides of gram neg. bacteria and carrier proteins for eliciting cross reactive immune response against heterologous strains of gram neg. bacteria)
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Baker, P; Infection and Immunity 1994, V62(6), P2257 HCAPLUS
(2) Rune, A; Microbial Pathogenesis 1997, V23(3), P139
(3) Stanislavsky, E; FEMS Microbiology Reviews 1997, V21(3), P243 HCAPLUS

L44 ANSWER 8 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:571730 HCAPLUS
DN 131:213099
ED Entered STN: 09 Sep 1999
TI Vaccine for Moraxella catarrhalis
IN Murphy, Timothy F.
PA The Research Foundation of State University of New York, USA
SO U.S., 20 pp., Cont.-in-part of U.S. 5,607,846.
CODEN: USXXAM
DT Patent
LA English
IC ICM A61K039-02
ICS C07K014-00
NCL 424251100
CC 15-2 (Immunochemistry)
Section cross-reference(s): 3
FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | |
|---|---|---|---|---|---|---|
| PI | US 5948412 | A | 19990907 | US 1997-810655 | 19970303 | <-- |
| | US 5607846 | A | 19970304 | US 1994-245758 | 19940517 | <-- |
| | CA 2189971 | AA | 19951123 | CA 1995-2189971 | 19950420 | <-- |
| | CA 2189971 | C | 20030729 | | | |
| | ES 2202361 | T3 | 20040401 | ES 1995-917165 | 19950420 | <-- |
| PRAI | US 1994-245758 | A2 | 19940517 | <-- | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES | |
|---|---|---|---|
| US 5948412 | ICM | A61K039-02 | |
| | ICS | C07K014-00 | |
| | NCL | 424251100 | |
| US 5948412 | ECLA | C07K014/21B | <-- |
| US 5607846 | ECLA | C07K014/21B | <-- |

AB Compns. comprising outer membrane protein E, and peptides and oligopeptides thereof, of Moraxella catarrhalis are described. Addnl., nucleotide sequences encoding the protein, peptide, or oligopeptide are disclosed, as well as recombinant vectors containing these sequences. Protein, peptide, or oligopeptide can be produced from host cell systems containing these recombinant vectors. Peptides and oligopeptides can also be chemical synthesized. Disclosed are the uses of the protein, peptides and oligopeptides as antigens in antigenic formulations for vaccine applications or for generating antisera of diagnostic or therapeutic use; and as antigens in diagnostic immunoassays. The nucleotide sequences are useful for constructing vectors for use as vaccines for insertions into

attenuated bacteria in constructing a recombinant bacterial vaccine and for inserting into a viral vector in constructing a recombinant viral vaccine. Also described is the use of nucleotide sequences related to the gene encoding E as primers and/or probes in mol. diagnostic assays for the detection of M. catarrhalis.

ST Moraxella catarrhalis outer membrane protein E; vaccine antiserum outer membrane protein E; gene protein E epitope probe primer

IT Primers (nucleic acid)
Primers (nucleic acid)
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(DNA; vaccine for Moraxella catarrhalis comprising outer membrane protein E epitope and primers and probes for genetic diagnosis)

IT Proteins, specific or class
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(OMP (outer membrane protein), E; vaccine for Moraxella catarrhalis comprising outer membrane protein E epitope and primers and probes for genetic diagnosis)

IT Polysaccharides, biological studies
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(capsular; vaccine for Moraxella catarrhalis comprising outer membrane protein E epitope and primers and probes for genetic diagnosis)

IT Drug delivery systems
(carriers; vaccine for Moraxella catarrhalis comprising outer membrane protein E epitope and primers and probes for genetic diagnosis)

IT Diagnosis
(immunodiagnosis; vaccine for Moraxella catarrhalis comprising outer membrane protein E epitope and primers and probes for genetic diagnosis)

IT DNA
DNA
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(primer; vaccine for Moraxella catarrhalis comprising outer membrane protein E epitope and primers and probes for genetic diagnosis)

IT Animal cell line
Antiserums
Bacteria (Eubacteria)
DNA sequences
**Epitopes**
Filamentous fungi
**Haemophilus influenzae**
Insect (Insecta)
Mammal (Mammalia)
Molecular cloning
**Moraxella catarrhalis**
Neisseria meningitidis
Protein sequences
Pseudomonas aeruginosa
Staphylococcus aureus
Streptococcus pneumoniae
**Vaccines**
Virus vectors
Yeast
(vaccine for Moraxella catarrhalis comprising outer membrane protein E epitope and primers and probes for genetic diagnosis)

IT Gene, microbial
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(vaccine for Moraxella catarrhalis comprising outer membrane protein E epitope and primers and probes for genetic diagnosis)

IT **Antigens**
Lipopolysaccharides
Polysaccharides, biological studies
RNA
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(vaccine for Moraxella catarrhalis comprising outer membrane protein E epitope and primers and probes for genetic diagnosis)

IT Probes (nucleic acid)
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(vaccine for Moraxella catarrhalis comprising outer membrane protein E epitope and primers and probes for genetic diagnosis)
IT 159869-80-4 174065-50-0 242799-79-7
RL: PRP (Properties)
(amino acid sequence; vaccine for Moraxella catarrhalis comprising outer membrane protein E epitope and primers and probes for genetic diagnosis)
IT 174066-42-3
RL: PRP (Properties)
(nucleotide sequence; vaccine for Moraxella catarrhalis comprising outer membrane protein E epitope and primers and probes for genetic diagnosis)
IT 173432-99-0 173433-06-2 173433-09-5 173433-10-8 173433-11-9
173433-12-0 173433-13-1
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(vaccine for Moraxella catarrhalis comprising outer membrane protein E epitope and primers and probes for genetic diagnosis)
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Bartos; J Infect Dis 1988, V158, P761 HCAPLUS
(2) Bhushan; Abstracts Gen Meet Am Soc Microbiol 1991, V97, P30
(3) Maciver; J Infect Dis 1993, V168, P469 MEDLINE

L44 ANSWER 9 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:487519 HCAPLUS
DN 131:120851
ED Entered STN: 06 Aug 1999
TI Nonrecombinant subunit vaccine
IN Gerlach, Gerald-F.; Goethe, Ralph
PA Germany
SO Ger. Offen., 22 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM A61K039-102
ICS A61K039-095
CC 63-4 (Pharmaceuticals)
Section cross-reference(s): 15
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI DE 19753176 | A1 | 19990729 | DE 1997-19753176 | 19971120 <-- |
| DE 19753176 | C2 | 20000427 | | |
| PRAI DE 1997-19753176 | | 19971120 <-- | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---|---|---|
| DE 19753176 | ICM | A61K039-102 |
| | ICS | A61K039-095 |

AB The title bacterial vaccines are obtained by (1) cultivation of (preferably gram-neg.) pathogenic bacteria, preferably under mineral or nutrient deficiency stress or heat stress, and (2) enrichment of protective antigens from the bacteria by use of detergents, especially steroidal detergents such as cholic acid. This procedure exts. various protective antigens (especially lipoproteins) from the outer membrane without lysing the bacteria and thus without causing release of extraneous proteins. The subunit vaccine can be used as a marker vaccine for differentiation of vaccinated from infected subjects by ELISA. Thus, Actinobacillus pleuropneumoniae 811/051 (serotype 9) was cultivated in PPLO medium + Iso Vitale X at 37.degree. under Fe deficiency conditions (100 .mu.M 2,2'-dipyridyl), centrifuged, and resuspended in distilled water, and transferrin-binding protein A was extracted from the outer membrane with 0.075% Na deoxycholate. This extract and a similar extract from serotype 2 were combined 1:2, diluted 1:10, and mixed with HCHO 0.05 and Emulsigen Plus 20% for use as a vaccine in swine.
ST bacteria vaccine outer membrane protein; Actinobacillus vaccine detergent extn; pleuropneumonia vaccine extn deoxycholate
IT Proteins, specific or class
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(OMP (outer membrane protein); nonrecombinant subunit vaccine)
IT Detergents
(anionic; nonrecombinant subunit vaccine)
IT Mineral elements, biological studies

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(bacteria deficiency in; nonrecombinant subunit vaccine)

IT Nutrition, microbial
(deficiency; nonrecombinant subunit vaccine)

IT Immunoassay
(enzyme-linked immunosorbent assay, for bacterial outer membrane proteins; nonrecombinant subunit vaccine)

IT Swine
(immunization of, against pleuropneumonia; nonrecombinant subunit vaccine)

IT Diagnosis
(immunodiagnosis, of pleuropneumonia; nonrecombinant subunit vaccine)

IT Detergents
(nonionic; nonrecombinant subunit vaccine)

IT Actinobacillus equuli
Actinobacillus pleuropneumoniae
Chelating agents
Detergents
Escherichia coli
Gram-negative bacteria
**Haemophilus actinomycetemcomitans**
Haemophilus agni
**Haemophilus influenzae**
**Haemophilus paragallinarum**
**Haemophilus parasuis**
Haemophilus somnus
Mannheimia haemolytica
**Moraxella bovis**
**Moraxella catarrhalis**
**Moraxella lacunata**
Neisseria gonorrhoeae
Neisseria meningitidis
Neisseriaceae
Pasteurella avium
Pasteurella multocida
Pasteurellaceae
Stress, microbial
**Vaccines**
(nonrecombinant subunit vaccine)

IT **Antigens**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(nonrecombinant subunit vaccine)

IT Bile acids
Bile salts
Quaternary ammonium compounds, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(nonrecombinant subunit vaccine)

IT Antibodies
RL: ANT (Analyte); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(to Actinobacillus pleuropneumoniae; nonrecombinant subunit vaccine)

IT Proteins, specific or class
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(transferrin-binding; nonrecombinant subunit vaccine)

IT Nutrition, animal
(undernutrition; nonrecombinant subunit vaccine)

IT Detergents
(zwitterionic; nonrecombinant subunit vaccine)

IT 7439-89-6, Iron, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(chelating agents for; nonrecombinant subunit vaccine)

IT 60-00-4, EDTA, biological studies 67-43-6D, salts 70-51-9, Deferrioxamine 139-13-9 366-18-7, 2,2'-Dipyridyl 12111-24-9
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(nonrecombinant subunit vaccine)

IT 57-09-0, Cetyltrimethylammonium bromide 81-24-3, Taurocholic acid 81-25-4, Cholic acid 83-44-3, Deoxycholic acid 98-11-3D, Benzenesulfonic acid, alkyl derivs., biological studies 151-21-3, SDS, biological studies 302-95-4, Sodium deoxycholate 360-65-6,

Glycodeoxycholic acid 361-09-1, Sodium cholate 475-31-0, Glycocholic acid 516-50-7, Taurodeoxycholic acid 2044-56-6, Lithium dodecyl sulfate 7631-98-3, Sodium N-laurylsarcosinate 9002-92-0, Brij 35 9002-93-1, Triton X-100 9004-95-9, Brij 58 9005-64-5, Tween 20 9005-65-6, Tween 80 9036-19-5, Nonidet P40 9043-30-5, Genapol X-080 14933-09-6, N-Tetradecyl-N,N-dimethyl-3-ammonio-1-propanesulfonate 25339-99-5, Sucrose monolaurate 29836-26-8 59122-55-3 68894-53-1, Tergitol 69227-93-6 75621-03-3, CHAPS 82473-24-3, CHAPSO 85261-20-7, MEGA 10 85316-98-9, MEGA 8 86295-19-4, N-Dodecyl-N,N-dimethyl-3-ammonio-1-propanesulfonate 86303-23-3, Deoxy BigCHAP 106392-12-5, Synperonic PE/F 68 232601-34-2, Tween 48
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(nonrecombinant subunit vaccine)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Anon; DD 242716 A3 HCAPLUS
(2) Anon; EP 37931 A2 HCAPLUS
(3) Anon; US 4845036 HCAPLUS
(4) Wpids; AU 9061356 A HCAPLUS
(5) Wpids; AU 9534351 A

L44 ANSWER 10 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:800024 HCAPLUS
DN 130:51336
ED Entered STN: 22 Dec 1998
TI Laft mutants of pathogenic gram-negative bacteria
IN Apicella, Michael A.; Gibson, Bradford W.; Nichols, Wade A.
PA University of Iowa Research Foundation, USA; University of California
SO PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K039-02
ICS A01N063-00; C12N001-00; C12N001-20
CC 15-2 (Immunochemistry)
Section cross-reference(s): 3, 10

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 9853851 | A1 | 19981203 | WO 1998-US10881 | 19980528 <-- |
| | W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| | AU 9877010 | A1 | 19981230 | AU 1998-77010 | 19980528 <-- |
| PRAI | US 1997-47791P | P | 19970528 <-- | | |
| | WO 1998-US10881 | W | 19980528 <-- | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---|---|---|
| WO 9853851 | ICM | A61K039-02 |
| | ICS | A01N063-00; C12N001-00; C12N001-20 |
| WO 9853851 | ECLA | C12N009/10C1 <-- |

AB A method is provided for identifying, isolating, and producing lipooligosaccharide (LOS) mutants of gram-neg. bacterial pathogens. The method comprises mutating the laft gene of a gram-neg. bacterial pathogen so that there is a lack of a functional Lipid A fatty acid transferase protein. The resulting LOS mutants lack one or more secondary acyl chains as compared to the LOS contained in the wild type gram-neg. bacterial pathogen. The LOS isolated from the laft mutants displays substantially reduced toxicity as compared to that of the wild type strain. Also, the present invention provides methods for using a vaccine formulation containing the laft mutants, the endotoxin isolated therefrom, or the endotoxin isolated therefrom which is then conjugated to a carrier protein, to immunize an individual against infections caused by gram-neg. bacterial pathogens by administering a prophylactically effective amount of the vaccine formulation.

ST lipid A fatty acid transferase gene; lipopolysaccharide endotoxin vaccine gram neg bacteria

IT **Immunostimulants**
(**adjuvants**; bacterium having mutated lipid A fatty acid transferase gene as vaccine for preventing infections by pathogenic

gram-neg. bacteria)
IT Microorganism
(antigen; bacterium having mutated lipid A fatty acid transferase gene as vaccine for preventing infections by pathogenic gram-neg. bacteria)
IT Infection
(bacterium having mutated lipid A fatty acid transferase gene as vaccine for preventing infections by pathogenic gram-neg. bacteria)
IT Drug delivery systems
(carriers; bacterium having mutated lipid A fatty acid transferase gene as vaccine for preventing infections by pathogenic gram-neg. bacteria)
IT Toxins
RL: PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(endotoxins; gram-neg. bacterium having mutated lipid A fatty acid transferase gene as vaccine for preventing infections)
IT Bordetella pertussis
Escherichia coli
Gram-negative bacteria
**Haemophilus ducreyi**
**Haemophilus influenzae**
Human adenovirus
Human parainfluenza virus
Influenza virus
Legionella pneumophila
**Moraxella catarrhalis**
Mycoplasma pneumoniae
Neisseria gonorrhoeae
Pneumocystis carinii
Pseudomonas aeruginosa
Respiratory syncytial virus
Streptococcus group A
Streptococcus pneumoniae
**Vaccines**
(gram-neg. bacterium having mutated lipid A fatty acid transferase gene as vaccine for preventing infections)
IT **Antigens**
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(gram-neg. bacterium having mutated lipid A fatty acid transferase gene as vaccine for preventing infections)
IT Lipopolysaccharides
RL: PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(gram-neg. bacterium having mutated lipid A fatty acid transferase gene as vaccine for preventing infections)
IT Drug delivery systems
(injections, i.m.; bacterium having mutated lipid A fatty acid transferase gene as vaccine for preventing infections by pathogenic gram-neg. bacteria)
IT Drug delivery systems
(injections, i.v.; bacterium having mutated lipid A fatty acid transferase gene as vaccine for preventing infections by pathogenic gram-neg. bacteria)
IT Drug delivery systems
(injections, s.c.; bacterium having mutated lipid A fatty acid transferase gene as vaccine for preventing infections by pathogenic gram-neg. bacteria)
IT Drug delivery systems
(intradermal; bacterium having mutated lipid A fatty acid transferase gene as vaccine for preventing infections by pathogenic gram-neg. bacteria)
IT Gene, microbial
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(laft (lipid A fatty acid transferase); gram-neg. bacterium having mutated lipid A fatty acid transferase gene as vaccine for preventing infections)
IT Gene, microbial
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(msbB; gram-neg. bacterium having mutated lipid A fatty acid transferase gene as vaccine for preventing infections)
IT Drug delivery systems
(mucosal; bacterium having mutated lipid A fatty acid transferase gene as vaccine for preventing infections by pathogenic gram-neg. bacteria)
IT Drug delivery systems

(nasal, intra-; bacterium having mutated lipid A fatty acid transferase gene as vaccine for preventing infections by pathogenic gram-neg. bacteria)
IT Gene
RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(open reading frame; gram-neg. bacterium having mutated lipid A fatty acid transferase gene as vaccine for preventing infections)
IT Drug delivery systems
(ophthalmic; bacterium having mutated lipid A fatty acid transferase gene as vaccine for preventing infections by pathogenic gram-neg. bacteria)
IT Drug delivery systems
(oral; bacterium having mutated lipid A fatty acid transferase gene as vaccine for preventing infections by pathogenic gram-neg. bacteria)
IT Drug delivery systems
(solns., i.p.; bacterium having mutated lipid A fatty acid transferase gene as vaccine for preventing infections by pathogenic gram-neg. bacteria)
IT 115926-32-4
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(gram-neg. bacterium having mutated lipid A fatty acid transferase gene as vaccine for preventing infections)
IT 217181-27-6
RL: PRP (Properties)
(nucleotide sequence; gram-neg. bacterium having mutated lipid A fatty acid transferase gene as vaccine for preventing infections)
RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Clementz; J Biol Chem 1997, V272(16), P10353 HCAPLUS
(2) Jones; Infect Immun 1997, V65(11), P4778 HCAPLUS
(3) Lee; J Biol Chem 1995, V270(45), P27151 HCAPLUS
(4) Somerville; J Clin Invest 1996, V97(2), P359 HCAPLUS
(5) Sprouse; US 5641492 A 1997 HCAPLUS
(6) Sunshine; J Bacteriol 1997, V179(17), P5521 HCAPLUS

L44 ANSWER 11 OF 18 'HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1993:17456 HCAPLUS
DN 118:17456
ED Entered STN: 24 Jan 1993
TI Use of the purA gene as a selectable marker in stabilization and integration of plasmid or bacteriophage cloning vectors
IN Brey, Robert Newton, III; Fulginiti, James Peter; Anilionis, Algis
PA American Cyanamid Co., USA
SO Eur. Pat. Appl., 29 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM C12N015-74
ICS A61K039-112
ICI C12N015-74, C12R001-42
CC 3-2 (Biochemical Genetics)
Section cross-reference(s): 10, 15
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | EP 512260 | A2 | 19921111 | EP 1992-105887 | 19920406 <-- |
| | EP 512260 | A3 | 19930728 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, PT, SE | | | | |
| | AT 202800 | E | 20010715 | AT 1992-105887 | 19920406 <-- |
| | ES 2160573 | T3 | 20011116 | ES 1992-105887 | 19920406 <-- |
| | PT 512260 | T | 20011228 | PT 1992-105887 | 19920406 <-- |
| | JP 05192161 | A2 | 19930803 | JP 1992-134375 | 19920428 <-- |
| | JP 3320095 | B2 | 20020903 | | |
| | NO 9201729 | A | 19921104 | NO 1992-1729 | 19920430 <-- |
| | CA 2067862 | AA | 19921104 | CA 1992-2067862 | 19920501 <-- |
| | CA 2067862 | C | 20031230 | | |
| | AU 9215959 | A1 | 19921105 | AU 1992-15959 | 19920501 <-- |
| | AU 654347 | B2 | 19941103 | | |
| | US 5919663 | A | 19990706 | US 1995-380297 | 19950130 <-- |
| | US 5961983 | A | 19991005 | US 1995-448907 | 19950524 <-- |
| | GR 3036487 | T3 | 20011130 | GR 2001-401346 | 20010831 <-- |
| PRAI | US 1991-695706 | A | 19910503 <-- | | |
| | US 1994-204903 | B1 | 19940302 <-- | | |
| | US 1995-380297 | A3 | 19950130 <-- | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---|---|---|
| EP 512260 | ICM | C12N015-74 |
| | ICS | A61K039-112 |
| | ICI | C12N015-74, C12R001-42 |
| US 5961983 | ECLA | A61K039/015 <-- |

AB Host bacteria carrying deletions in the purA gene (for adenylosuccinate synthetase) are used as hosts for cloning vectors carrying the purA gene as a selectable marker. The vector is stabilized by selection and the purA gene also acts as a site for integration of the plasmid. The use of these vectors does not involve the use of antibiotic resistance markers and is therefore particularly suitable for hosts used in live vaccines. A pUC8-based plasmid carrying the Escherichia coli purA gene and the gene for the nontoxic subunit of the E. coli heat-labile enterotoxin was constructed and introduced into Salmonella dublin, S. typhimurium or Salmonella vaccine strains carrying deletions in the purA gene and transformants selected on minimal medium. This plasmid was maintained in cultures grown on a minimal medium without loss for 80 generations but lost rapidly in the absence of selection (1% retention in 40 generations). When the purA gene was used in integrating vectors the prototrophic phenotype was 100% stable for at least 80 generations in the presence or absence of selection.

ST purA gene selectable marker cloning vector; Salmonella adenine auxotrophy selectable marker

IT Bordetella pertussis
Chlamydia trachomatis
Clostridium tetani
Corynebacterium diphtheriae
Escherichia coli
**Haemophilus influenzae**
Klebsiella pneumoniae
**Moraxella catarrhalis**
Neisseria gonorrhoeae
Neisseria meningitidis
Parasite
Pseudomonas aeruginosa
Staphylococcus aureus
Streptococcus pneumoniae
Streptococcus pyogenes
Vibrio cholerae
(antigens of, genes for, vaccine bacteria carrying, cloning vectors using purA gene as selectable marker in)

IT Aromatic hydrocarbons, biological studies
RL: BPN (Biosynthetic preparation); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(biosynthesis of, microorganism deficient in as host for expression vectors, complementing genes on plasmids as selectable markers for)

IT Plasmid and Episome
Virus, bacterial
(cloning vector, purA gene as selectable marker for, adenine auxotrophic host for)

IT **Antigens**
RL: BIOL (Biological study)
(genes for, vaccine bacteria carrying, cloning vectors using purA gene as selectable marker in)

IT Campylobacter
Escherichia
Salmonella
Salmonella dublin
Salmonella typhimurium
Shigella
Vibrio
Yersinia
(in live vaccines, heterologous antigen genes in, stabilization or integration of, purA gene as selectable marker in)

IT **Vaccines**
(live, bacteria carrying cloned antigen genes for, purA gene as a selectable marker for cloning vectors in)

IT Plasmid and Episome
(pX3005, gene for heat-labile enterotoxin subunit of Escherichia coli on, integration and expression in Salmonella of, purA gene as selectable marker in)

IT Plasmid and Episome
(pX3006, gene for circumsporozoite antigen of Plasmodium berghei on, integration and expression in Salmonella of, purA gene as selectable marker in)

IT Plasmid and Episome
(pX3007, chimeric gene for fusion protein of circumsporozoite antigen of Plasmodium berghei and Escherichia coli enterotoxin on, integration and expression in Salmonella of, purA gene as selectable marker in)
IT Plasmid and Episome
(pX3009, gene for circumsporozoite antigen of Plasmodium berghei on, integration and expression in Salmonella of, purA gene as selectable marker in)
IT Plasmid and Episome
(pX3010, gene for heat-labile enterotoxin subunit of Escherichia coli on, integration and expression in Salmonella of, purA gene as selectable marker in)
IT **Antigens**
RL: BIOL (Biological study)
(CS (circumsporozoite), gene for, expression in enterobacteria of, in live vaccines, purA gene for stabilization or integration of antigen genes in, fusion proteins with heat-labile enterotoxin subunit in relation to)
IT Virus, animal
(Epstein-Barr, antigens of, genes for, vaccine bacteria carrying, cloning vectors using purA gene as selectable marker in)
IT Virus, animal
(adeno-, antigens of, genes for, vaccine bacteria carrying, cloning vectors using purA gene as selectable marker in)
IT Virus, animal
(corona-, antigens of, genes for, vaccine bacteria carrying, cloning vectors using purA gene as selectable marker in)
IT Virus, animal
(cytomegalo-, antigens of, genes for, vaccine bacteria carrying, cloning vectors using purA gene as selectable marker in)
IT Toxins
RL: BIOL (Biological study)
(entero-, LT, gene for, expression in enterobacteria of, in live vaccines, purA gene for stabilization or integration of enterotoxin genes in, fusion proteins with circumsporozoite antigens in relation to)
IT Virus, animal
(hepatitis A, antigens of, genes for, vaccine bacteria carrying, cloning vectors using purA gene as selectable marker in)
IT Virus, animal
(hepatitis B, antigens of, genes for, vaccine bacteria carrying, cloning vectors using purA gene as selectable marker in)
IT Virus, animal
(hepatitis C, antigens of, genes for, vaccine bacteria carrying, cloning vectors using purA gene as selectable marker in)
IT Virus, animal
(hepatitis, non-A, non-B, antigens of, genes for, vaccine bacteria carrying, cloning vectors using purA gene as selectable marker in)
IT Virus, animal
(herpes simplex 1, antigens of, genes for, vaccine bacteria carrying, cloning vectors using purA gene as selectable marker in)
IT Virus, animal
(herpes simplex 2, antigens of, genes for, vaccine bacteria carrying, cloning vectors using purA gene as selectable marker in)
IT Virus, animal
(human T-cell leukemia type I, antigens of, genes for, vaccine bacteria carrying, cloning vectors using purA gene as selectable marker in)
IT Virus, animal
(human T-cell leukemia type II, antigens of, genes for, vaccine bacteria carrying, cloning vectors using purA gene as selectable marker in)
IT Virus, animal
(human immunodeficiency 1, antigens of, genes for, vaccine bacteria carrying, cloning vectors using purA gene as selectable marker in)
IT Virus, animal
(human immunodeficiency 2, antigens of, genes for, vaccine bacteria carrying, cloning vectors using purA gene as selectable marker in)
IT Virus, animal
(influenza, antigens of, genes for, vaccine bacteria carrying, cloning vectors using purA gene as selectable marker in)
IT Virus, animal
(measles, antigens of, genes for, vaccine bacteria carrying, cloning vectors using purA gene as selectable marker in)
IT Virus, animal
(papilloma, antigens of, genes for, vaccine bacteria carrying, cloning vectors using purA gene as selectable marker in)

IT Virus, animal
(parainfluenza, antigens of, genes for, vaccine bacteria carrying, cloning vectors using purA gene as selectable marker in)
IT Fungi
(pathogenic, antigens of, genes for, vaccine bacteria carrying, cloning vectors using purA gene as selectable marker in)
IT Virus, animal
(polio-, antigens of, genes for, vaccine bacteria carrying, cloning vectors using purA gene as selectable marker in)
IT Virus, animal
(respiratory syncytial, antigens of, genes for, vaccine bacteria carrying, cloning vectors using purA gene as selectable marker in)
IT Virus, animal
(rota-, antigens of, genes for, vaccine bacteria carrying, cloning vectors using purA gene as selectable marker in)
IT Virus, animal
(rubella, antigens of, genes for, vaccine bacteria carrying, cloning vectors using purA gene as selectable marker in)
IT Virus, animal
(varicella-zoster, antigens of, genes for, vaccine bacteria carrying, cloning vectors using purA gene as selectable marker in)
IT Virus, animal
(yellow fever, antigens of, genes for, vaccine bacteria carrying, cloning vectors using purA gene as selectable marker in)
IT Gene, microbial
RL: BIOL (Biological study)
(purA, as selectable marker for cloning vectors, deletion of host copy of gene in)
IT 73-24-5, Adenine, biological studies
RL: BIOL (Biological study)
(auxotrophy for, as selectable marker for cloning vectors, deletion of host copy of gene in)
IT 120-73-0, Purine
RL: BIOL (Biological study)
(biosynthesis of, microorganism deficient in as host for expression vectors, complementing genes on plasmids as selectable markers for)
IT 9023-57-8, Adenylosuccinate synthetase
RL: BIOL (Biological study)
(gene for, as selectable marker for cloning vectors, deletion of host copy of gene in)

L44 ANSWER 12 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1991:499235 HCAPLUS
DN 115:99235
ED Entered STN: 06 Sep 1991
TI A method for isolating and purifying transferrin and lactoferrin receptor proteins from bacteria and the preparation of vaccines containing the same
IN Schryvers, Anthony Bernard
PA University Technologies International Inc., Can.
SO PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K039-095
ICS A61K039-102; A61K039-02
CC 63-3 (Pharmaceuticals)
FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 9012591 | A1 | 19901101 | WO 1990-CA131 | 19900426 <-- |
| | W: AU, CA, JP, KR, SU | | | | |
| | RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE | | | | |
| | US 5292869 | A | 19940308 | US 1990-507481 | 19900409 <-- |
| | AU 9055261 | A1 | 19901116 | AU 1990-55261 | 19900426 <-- |
| | AU 649950 | B2 | 19940609 | | |
| | JP 04506794 | T2 | 19921126 | JP 1990-506296 | 19900426 <-- |
| | JP 3335622 | B2 | 20021021 | | |
| | EP 528787 | A1 | 19930303 | EP 1990-906093 | 19900426 <-- |
| | EP 528787 | B1 | 19981202 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE | | | | |
| | ES 2127184 | T3 | 19990416 | ES 1990-906093 | 19900426 <-- |
| | CA 2051808 | C | 19991214 | CA 1990-2051808 | 19900426 <-- |
| | JP 2002316942 | A2 | 20021031 | JP 2002-54731 | 19900426 <-- |
| | US 6060058 | A | 20000509 | US 1995-483881 | 19950607 <-- |
| PRAI | US 1989-344356 | A | 19890427 <-- | | |
| | US 1990-507481 | A | 19900409 <-- | | |

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     JP 1990-506296        A3     19900426  <--
     WO 1990-CA131         A      19900426  <--
     US 1991-639365        A3     19910110  <--
     US 1992-851005        B1     19920312  <--
     US 1994-207719        B1     19940309  <--
CLASS
 PATENT NO.       CLASS  PATENT FAMILY CLASSIFICATION CODES
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 WO 9012591       ICM    A61K039-095
                  ICS    A61K039-102; A61K039-02
AB   A method of isolating and purifgying transferrin and lactoferrin receptor
     proteins from bacterial pathogens by affinity chromatog. is described.
     The proteins are used for preparing vaccine antigens. The vaccine antigens
     are effective in preventing diseases caused by bacterial pathogens containing
     lactoferrin and transferrin receptor proteins. The human-lactoferrin
     binding protein from Neisseria meningitidis is identified and
     characterized. It is incorporated into vaccine prepns.
ST   vaccine bacteria lactoferrin receptor; transferrin receptor vaccine
     bacteria
IT   Vaccines
        (against bacteria, lactoferrin and transferrin receptors as)
IT   Receptors
     RL: BIOL (Biological study)
        (for lactoferrin and transferrin, from bacteria, vaccines
        containing)
IT   Actinobacillus suis
     Haemophilus avium
       Haemophilus gallinarum
       Haemophilus influenzae
       Haemophilus paragallinarum
     Haemophilus pleuropneumoniae
     Haemophilus somnus
       Haemophilus suis
       Moraxella catarrhalis
     Neisseria gonorrhoeae
     Neisseria lactamicus
     Neisseria meningitidis
     Pasteurella haemolytica
     Pasteurella multocida
        (lactoferrin and transferrin receptors from, vaccines containing)
IT   Lactoferrins
     Transferrins
     RL: BIOL (Biological study)
        (receptors for, from bacteria, vaccines containing)
IT   Antigens
     RL: BIOL (Biological study)
        (vaccines, against bacteria, lactoferrin and transferrin receptors as)
IT   Proteins, specific or class
     RL: BIOL (Biological study)
        (lactoferrin-binding, vaccines containing)
IT   Proteins, specific or class
     RL: BIOL (Biological study)
        (transferrin-binding, vaccines containing)

L44  ANSWER 13 OF 18  HCAPLUS  COPYRIGHT 2004 ACS on STN
AN   1991:171296  HCAPLUS
DN   114:171296
ED   Entered STN:  03 May 1991
TI   Cytokine and hormone carriers for conjugate vaccines
IN   Pillai, Subramonia; Eby, Ronald
PA   Praxis Biologics, Inc., USA
SO   PCT Int. Appl., 50 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
IC   ICM  A61K047-48
     ICS  A61K039-385
CC   63-3 (Pharmaceuticals)
     Section cross-reference(s): 2, 15
FAN.CNT 2
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     --------------      ----   --------    -------------------    --------
PI   WO 9101146           A1     19910207    WO 1990-US3983         19900716 <--
         W:  AU, CA, FI, JP, KR, NO
         RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE
     CA 2063271           AA     19910115    CA 1990-2063271        19900716 <--
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| | | | | | |
|---|---|---|---|---|---|
| | AU 9060550 | A1 | 19910222 | AU 1990-60550 | 19900716 <-- |
| | AU 651949 | B2 | 19940811 | | |
| | EP 482068 | A1 | 19920429 | EP 1990-911070 | 19900716 <-- |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE | | | | |
| | JP 04506662 | T2 | 19921119 | JP 1990-510469 | 19900716 <-- |
| | NO 9200160 | A | 19920305 | NO 1992-160 | 19920113 <-- |
| PRAI | US 1989-380566 | A | 19890714 <-- | | |
| | WO 1990-US3983 | A | 19900716 <-- | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---|---|---|
| WO 9101146 | ICM | A61K047-48 |
| | ICS | A61K039-385 |

AB Immunogenic conjugates are disclosed comprising a carbohydrate-containing antigen or other antigen bound to or genetically fused with a cytokine, lymphokine, hormone, or growth factor having immunomodulating activity, wherein the cytokine, lymphokine, hormone, or growth factor is capable of modifying immunogenicity of the carbohydrate-containing antigen. The cytokine or lymphokine can be an interleukin or an interferon. The immunogenic conjugate can be used in vaccine and covaccine formulations.

ST vaccine cytokine hormone carrier

IT Animal growth regulators
Hormones
Interferons
RL: PREP (Preparation)
(antigen bound to, for vaccine preparation)

IT Lymphokines and Cytokines
RL: PREP (Preparation)
(antigen conjugates, for vaccine preparation)

IT Carbohydrates and Sugars, biological studies
Oligosaccharides
Polysaccharides, biological studies
RL: PREP (Preparation)
(antigens containing, conjugates with cytokines and hormones, for vaccine preparation)

IT Fungi
Parasite
Virus, animal
(antigens of, conjugates with cytokines and hormones, for vaccine preparation)

IT Bordetella pertussis
Clostridium tetani
Corynebacterium diphtheriae
Escherichia coli
**Haemophilus influenzae**
Klebsiella pneumoniae
**Moraxella catarrhalis**
Neisseria gonorrhoeae
Neisseria meningitidis
Pseudomonas aeruginosa
Staphylococcus aureus
Streptococcus pneumoniae
Streptococcus pyogenes
Vibrio cholerae
(capsular polymers of, conjugates with cytokines and hormones, for vaccine preparation)

IT **Antigens**
RL: BIOL (Biological study)
(carbohydrate and hormone conjugates, in vaccine formulations)

IT **Vaccines**
(immunogenic conjugates with cytokines and hormones in formulations of)

IT Lipopolysaccharides
RL: PREP (Preparation)
(of bacteria, conjugates with cytokines and hormones, in vaccine preparation)

IT Peptidoglycans
RL: PREP (Preparation)
(of bacterial cell wall, conjugates with cytokines and hormones, in vaccine preparation)

IT Lymphokines and Cytokines
RL: PREP (Preparation)
(interleukin 1.alpha., antigen bound to, for vaccine preparation)

IT Lymphokines and Cytokines
RL: PREP (Preparation)
(interleukin 1.beta., antigen bound to, for vaccine preparation)

IT Lymphokines and Cytokines

RL: PREP (Preparation)
(interleukin 2, antigen bound to, for vaccine preparation)
IT Lymphokines and Cytokines
RL: PREP (Preparation)
(tumor necrosis factor, antigen conjugates, for vaccine preparation)
IT 9002-62-4D, Prolactin, antigen conjugates 9002-72-6D, Somatotropin, antigen conjugates 9004-10-8D, Insulin, antigen conjugates 62229-50-9D, Epidermal growth factor, antigen conjugates 62683-29-8D, Granulocyte colony-stimulating factor, antigen conjugates 82197-76-0D, Polyribosylribitolphosphate, antigen conjugates 83869-56-1D, Granulocyte macrophage colony stimulating factor, antigen conjugates
RL: BIOL (Biological study)
(vaccines from)

L44 ANSWER 14 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1990:558671 HCAPLUS
DN 113:158671
ED Entered STN: 27 Oct 1990
TI T-cell epitope as carrier molecule for conjugate vaccines
IN Bixler, Garvin; Pillai, Subramonia; Insel, Richard
PA Praxis Biologics, Inc., USA
SO PCT Int. Appl., 103 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K039-385
ICS C07K015-04; A61K039-155
CC 63-3 (Pharmaceuticals)
Section cross-reference(s): 15
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | |
|---|---|---|---|---|---|---|
| PI | WO 8906974 | A2 | 19890810 | WO 1989-US388 | 19890131 | <-- |
| | WO 8906974 | A3 | 19890824 | | | |
| | W: AU, DK, FI, JP, NO | | | | | |
| | RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE | | | | | |
| | AU 8930654 | A1 | 19890825 | AU 1989-30654 | 19890131 | <-- |
| | AU 634153 | B2 | 19930218 | | | |
| | EP 399001 | A1 | 19901128 | EP 1989-908669 | 19890131 | <-- |
| | EP 399001 | B1 | 19940727 | | | |
| | R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE | | | | | |
| | JP 03502691 | T2 | 19910620 | JP 1989-502396 | 19890131 | <-- |
| | JP 2921574 | B2 | 19990719 | | | |
| | NO 9002909 | A | 19900827 | NO 1990-2909 | 19900629 | <-- |
| | NO 179164 | B | 19960513 | | | |
| | NO 179164 | C | 19960821 | | | |
| | DK 9001829 | A | 19900731 | DK 1990-1829 | 19900731 | <-- |
| | DK 174416 | B1 | 20030217 | | | |
| | US 5785973 | A | 19980728 | US 1995-481923 | 19950607 | <-- |
| PRAI | US 1988-150688 | A | 19880201 | <-- | | |
| | US 1989-304783 | B1 | 19890131 | <-- | | |
| | WO 1989-US388 | A | 19890131 | <-- | | |
| | US 1992-828711 | B1 | 19920131 | <-- | | |
| | US 1993-164989 | B1 | 19931209 | <-- | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---|---|---|
| WO 8906974 | ICM | A61K039-385 |
| | ICS | C07K015-04; A61K039-155 |
| US 5785973 | ECLA | A61K039/385; A61K047/48R; C07K014/195 <-- |

AB Conjugates between T-cell epitopes (recognition sites) for bacterial products such as tetanus toxin and medically useful substances such as antigens, haptens, or antigenic determinants are prepared These conjugates elicit antibody responses and are useful in vaccine prepns. The use of the T-cell epitope, as opposed to a larger peptide containing the epitope, provides an economic advantage in that it may be readily prepared as well as a safety advantage in avoidance of use of the whole protein. The conjugates also stimulate antibodies against tumor-specific or tumor-associated antigens and are useful in the immunization of infants whose immune system is not fully developed. The DeLisi and Berzofsky algorithm (1985) for potential amphipathic regions was applied to diphtheria toxin cross-reactive material (CRM) and 6 regions were identified. Peptides corresponding to these CRM regions were synthesized (synthesis given) and those stimulating T-cells were conjugated to phosphoribosylribitol phosphate (PRP, capsular polymer of Haemophilus influenzae b). The conjugates were capable of stimulating antibodies to PRP.

ST T lymphocyte epitope conjugate vaccine; safety T lymphocyte epitope conjugate vaccine

IT Allergy inhibitors
Neoplasm inhibitors
**Vaccines**
(antigen conjugates with T-cell epitopes of bacterial products as)

IT Microorganism
Neoplasm, composition
Parasite
Virus
(antigens of, conjugates with T-cell epitopes of bacterial products, as vaccines)

IT **Haemophilus influenzae**
Neisseria meningitidis
(capsular antigen and outer membrane protein of, conjugates with T-cell epitopes of bacterial products, as vaccines)

IT Salmonella typhi
Streptococcus pneumoniae
(capsular antigens of, conjugates with T-cell epitopes of bacterial products, as vaccines)

IT **Allergens**
**Antigens**
Carbohydrates and Sugars, biological studies
RL: BIOL (Biological study)
(conjugates with T-cell epitopes of bacterial products, as vaccines)

IT Escherichia coli
**Moraxella catarrhalis**
Neisseria gonorrhoeae
Streptococcus pyogenes
(outer membrane proteins of, conjugates with T-cell epitopes of bacterial products, as vaccines)

IT Lymphocyte
(B-, epitopes reactive with, conjugates with T-cell epitopes, as vaccines)

IT Glycoproteins, specific or class
RL: BIOL (Biological study)
(F (fusion), conjugates, with T-cell epitopes of bacterial products, as vaccine)

IT Proteins, specific or class
RL: BIOL (Biological study)
(OMP (outer membrane protein), conjugates, with T-cell epitopes of bacterial products, as vaccines)

IT Lymphocyte
(T-, bacterial epitope reactive with, conjugates with antigens, as vaccines)

IT Disease
(autoimmune, treatment of, antigen conjugates with T-cell epitopes of bacterial products for)

IT Lipopolysaccharides
RL: BIOL (Biological study)
(conjugates, of gram-neg. bacteria, with T-cell epitopes of bacterial products, as vaccines)

IT Toxins
Toxoids
RL: BIOL (Biological study)
(diphtheria, T-cell epitopes of, antigen conjugates, as vaccines)

IT Bacteria
(gram-neg., lipopolysaccharides of, conjugates with T-cell epitopes of bacterial products, as vaccines)

IT Toxins
Toxoids
RL: BIOL (Biological study)
(pertussis, T-cell epitopes of, antigen conjugates, as vaccines)

IT Virus, animal
(respiratory syncytial, vaccine for, F protein conjugates with T-cell epitopes of bacterial products as)

IT Toxins
Toxoids
RL: BIOL (Biological study)
(tetanus, T-cell epitopes of, antigen conjugates, as vaccines)

IT 129774-60-3, Toxin (corynephage .beta. strain ATCC 53281 reduced)
RL: BIOL (Biological study)
(T-cell epitopes of, in vaccine preparation)

IT 128516-95-0D, antigen conjugates 128786-78-7D, antigen conjugates
129813-87-2D, antigen conjugates 129813-88-3D, antigen conjugates
129836-17-5D, antigen conjugates 129836-18-6D, antigen conjugates

129851-39-4D, antigen conjugates
RL: BIOL (Biological study)
(as vaccines)
IT 128516-95-0 128786-78-7 129813-87-2 129813-88-3 129836-17-5
129836-18-6 129851-39-4
RL: BIOL (Biological study)
(in vaccine preparation)
IT 129813-89-4P 129813-90-7P 129813-91-8P 129813-92-9P 129813-93-0P
129813-94-1P 129813-95-2P 129813-96-3P 129813-97-4P 129813-98-5P
129813-99-6P 129814-00-2P 129814-01-3P 129836-19-7P
RL: PRP (Properties); PREP (Preparation)
(preparation and amino acid sequence of, of diphtheria toxin cross-reactive material, in vaccine preparation)
IT 82197-76-0DP, Polyribosylribitol phosphate, conjugates with synthetic peptides of dipHtheria toxin cross-reactive material 129813-89-4DP, conjugates with polyribosylribitol phosphate 129813-90-7DP, conjugates with polyribosylribitol phosphate 129813-91-8DP, conjugates with polyribosylribitol phosphate 129813-92-9DP, conjugates with polyribosylribitol phosphate 129813-93-0DP, conjugates with polyribosylribitol phosphate 129813-94-1DP, conjugates with polyribosylribitol phosphate 129813-95-2DP, conjugates with polyribosylribitol phosphate 129813-96-3DP, conjugates with polyribosylribitol phosphate 129813-97-4DP, conjugates with polyribosylribitol phosphate 129813-98-5DP, conjugates with polyribosylribitol phosphate 129813-99-6DP, conjugates with polyribosylribitol phosphate 129814-00-2DP, conjugates with polyribosylribitol phosphate 129814-01-3DP, conjugates with polyribosylribitol phosphate 129836-19-7DP, conjugates with polyribosylribitol phosphate
RL: PREP (Preparation)
(preparation of, in preparation of vaccines for Haemophilus influenzae)

L44 ANSWER 15 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1990:520772 HCAPLUS
DN 113:120772
ED Entered STN: 29 Sep 1990
TI Milk antibody production with shaped polymer microparticles for controlled-release of antigens
IN Beck, Lee R.
PA Stolle Research and Development Corp., USA
SO U.S., 9 pp. Cont. of U.S. Ser. No. 576,001, abandoned.
CODEN: USXXAM
DT Patent
LA English
IC ICM A61K039-00
NCL 424088000
CC 63-3 (Pharmaceuticals)
Section cross-reference(s): 15, 17
FAN.CNT 7

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | US 4919929 | A | 19900424 | US 1986-910297 | 19860917 <-- |
| | AU 605159 | B2 | 19910110 | AU 1987-76086 | 19870724 <-- |
| | AU 8776086 | A1 | 19890127 | | |
| | US 4956349 | A | 19900911 | US 1988-177223 | 19880404 <-- |
| | US 5242691 | A | 19930907 | US 1990-580382 | 19900911 <-- |
| | CA 2072658 | AA | 19910507 | CA 1990-2072658 | 19901030 <-- |
| | CA 2072658 | C | 20010220 | | |
| | WO 9106321 | A1 | 19910516 | WO 1990-US6215 | 19901030 <-- |
| | W: AU, CA, JP, NO | | | | |
| | RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE | | | | |
| | AU 9066149 | A1 | 19910531 | AU 1990-66149 | 19901030 <-- |
| | AU 644820 | B2 | 19931223 | | |
| | JP 05501801 | T2 | 19930408 | JP 1990-515068 | 19901030 <-- |
| | JP 2912451 | B2 | 19990628 | | |
| | EP 593440 | A1 | 19940427 | EP 1990-915892 | 19901030 <-- |
| | EP 593440 | B1 | 19960821 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE | | | | |
| | AT 141513 | E | 19960915 | AT 1990-915892 | 19901030 <-- |
| | NO 9201748 | A | 19920701 | NO 1992-1748 | 19920504 <-- |
| | US 5352462 | A | 19941004 | US 1992-966741 | 19921027 <-- |
| PRAI | US 1984-576001 | B1 | 19840201 <-- | | |
| | US 1982-384625 | B2 | 19820603 <-- | | |
| | US 1983-576001 | B1 | 19830201 <-- | | |
| | US 1983-546162 | A3 | 19831027 <-- | | |
| | US 1986-910297 | A | 19860917 <-- | | |

| | | | |
|---|---|---|---|
| US 1987-1848 | A2 | 19870109 | <-- |
| US 1988-177223 | A2 | 19880404 | <-- |
| US 1989-431639 | A | 19891106 | <-- |
| US 1990-580382 | A2 | 19900911 | <-- |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---|---|---|
| US 4919929 | ICM | A61K039-00 |
| | NCL | 424088000 |
| US 5352462 | ECLA | A23C009/20; A24B015/30; A61K009/16H6D4; A61K035/20; A61K035/54; A61K035/74; A61K039/395A <-- |

AB Milk having elevated IgG antibody levels is produced by (1) i.m. or s.c. implantation within a bovidae of a hyperimmunization response-eliciting amount of an antigenic substance incorporated within shaped microparticles of a biocompatible matrix material which causes controlled-release of the antigen, thereby prolonging antigenic activity within the bovidae; and (2) recovering milk having an elevated level of antibody. The immunized state may be attained more rapidly by simultaneously administering the shaped matrix and the antigenic substance in liquid form. A polyvalent antigen sample (S-100) containing .apprx.26 kinds of heat-killed bacteria was microencapsulated in biodegradable lactide-glycolide copolymer microparticles (diameter < 250 .mu.m). The microparticles were suspended in vehicle (Tween 20 and CMC) and injected i.m. one time into cows. Increased antibody titer was shown in the milk.

ST controlled release antigen vaccine; cattle milk antibody prodn

IT **Vaccines**
(antigens in controlled-release microparticles as, for elevated milk antibody production)

IT Actinobacillus equuli
Actinobacillus lignieresii
Actinobacillus seminis
Bacillus cereus
Brucella melitensis
Campylobacter fetus
Campylobacter fetus intestinalis
Cell
Chlamydia psittaci
Clostridium tetani
Corynebacterium pyogenes
Corynebacterium renale
Enterobacter aerogenes
Escherichia coli
Fusobacterium necrophorum
Gardnerella vaginalis
**Haemophilus ducreyi**
**Haemophilus influenzae**
Klebsiella pneumoniae, oxides
Leptospira interrogans pomona
Listeria monocytogenes
**Moraxella bovis**
Mycobacterium tuberculosis
Mycoplasma bovigenitalium
Mycoplasma hominis
Neisseria gonorrhoeae
Pasteurella haemolytica
Pasteurella multocida
Propionibacterium acnes
Proteus vulgaris
Pseudomonas aeruginosa
Pseudomonas maltophilia
Rhodococcus equi
Salmonella abortivoequina
Salmonella abortusovis
Salmonella dublin
Salmonella enteritidis
Salmonella heidelberg
Salmonella paratyphi
Salmonella typhimurium
Shigella dysenteriae
Staphylococcus aureus
Staphylococcus epidermidis
Streptococcus agalactiae
Streptococcus bovis
Streptococcus dysgalactiae
Streptococcus equisimilis
Streptococcus mitis

Streptococcus mutans
Streptococcus pneumoniae
Streptococcus pyogenes
Streptococcus salivarius
Streptococcus sanguis
Streptococcus uberis
Treponema pallidum
Virus, animal
Yersinia enterocolitica
(antigens of, polymer microparticles containing, for controlled-release vaccines and elevated milk antibody production)

IT Milk
(elevated antibody production in, controlled-release microencapsulated antigen vaccines for)

IT Disease
(lymphopathia venereum, antigens of, polymer microparticles containing, for controlled-release vaccines and elevated milk antibody production)

IT Antibodies
RL: PRP (Properties)
(milk containing elevated levels of, production of, controlled-release microencapsulated antigen vaccine for)

IT **Antigens**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(polymer microparticles containing, for controlled-release vaccines and elevated milk antibody production)

IT Cattle
(vaccination of, with controlled-release microencapsulated antigen vaccines)

IT Bovidae
(vaccination of, with controlled-release microencapsulated antigen vaccines, for production of milk containing elevated levels of IgG antibodies)

IT Immunoglobulins
RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)
(G, milk containing elevated levels of, production of, controlled-release microencapsulated antigen vaccine for)

IT Venereal disease
(granuloma inguinale, antigens of, polymer microparticles containing, for controlled-release vaccines and elevated milk antibody production)

IT Streptococcus
(group B, antigens of, polymer microparticles containing, for controlled-release vaccines and elevated milk antibody production)

IT Polyethers, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(ortho esters, antigen microencapsulation in, for controlled-release vaccines and elevated milk antibody production)

IT 24980-41-4 25248-42-4, Poly[oxy(1-oxo-1,6-hexanediyl)] 25266-42-6 26009-03-0, Poly[oxy(1-oxo-1,2-ethanediyl)] 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26100-51-6 26124-68-5 31621-87-1 34346-01-5
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(antigen microencapsulation in, for controlled-release vaccines and elevated milk antibody production)

L44 ANSWER 16 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1990:42564 HCAPLUS
Correction of: 1988:461449
DN 112:42564
Correction of: 109:61449
ED Entered STN: 04 Feb 1990
TI Complexes of vitamin B12 and biologically active agents for oral drug delivery
IN Russell-Jones, Gregory John; De Aizpurua, Henry James; Howe, Peter Allan; Burge, Geoffery Lewis
PA Biotechnology Australia Pty. Ltd., Australia
SO Eur. Pat. Appl., 19 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM A61K047-00
ICS A61K037-02; A61K037-24
CC 63-5 (Pharmaceuticals)
Section cross-reference(s): 1

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | EP 220030 | A2 | 19870429 | EP 1986-307849 | 19861010 <-- |
| | EP 220030 | A3 | 19870930 | | |
| | EP 220030 | B1 | 19910619 | | |
| | R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE | | | | |
| | ZA 8607703 | A | 19870624 | ZA 1986-7703 | 19861009 <-- |
| | IN 165029 | A | 19890805 | IN 1986-CA738 | 19861009 <-- |
| | IL 80264 | A1 | 19911121 | IL 1986-80264 | 19861009 <-- |
| | CA 1330791 | A1 | 19940719 | CA 1986-520162 | 19861009 <-- |
| | WO 8702251 | A1 | 19870423 | WO 1986-AU299 | 19861010 <-- |
| | W: AU, DK, FI, JP, KR, NO, SU, US | | | | |
| | AU 8665289 | A1 | 19870505 | AU 1986-65289 | 19861010 <-- |
| | AU 587658 | B2 | 19890824 | | |
| | CN 86107590 | A | 19870520 | CN 1986-107590 | 19861010 <-- |
| | CN 1045391 | B | 19991006 | | |
| | JP 63501015 | T2 | 19880414 | JP 1986-505525 | 19861010 <-- |
| | JP 08000779 | B4 | 19960110 | | |
| | AT 64534 | E | 19910715 | AT 1986-307849 | 19861010 <-- |
| | ES 2051690 | T3 | 19940701 | ES 1986-307849 | 19861010 <-- |
| | DK 8702925 | A | 19870609 | DK 1987-2925 | 19870609 <-- |
| | DK 167099 | B1 | 19930830 | | |
| | US 5428023 | A | 19950627 | US 1993-61343 | 19930517 <-- |
| | US 5589463 | A | 19961231 | US 1995-479635 | 19950607 <-- |
| | US 5807832 | A | 19980915 | US 1995-483811 | 19950607 <-- |
| PRAI | AU 1985-2838 | A | 19851010 <-- | | |
| | EP 1986-307849 | A | 19861010 <-- | | |
| | WO 1986-AU299 | A | 19861010 <-- | | |
| | US 1987-84821 | B1 | 19870609 <-- | | |
| | AU 1988-2838 | A | 19881010 <-- | | |
| | US 1990-600137 | B1 | 19901019 <-- | | |
| | US 1991-759697 | B1 | 19910909 <-- | | |
| | US 1993-61343 | A3 | 19930517 <-- | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---|---|---|
| EP 220030 | ICM | A61K047-00 |
| | ICS | A61K037-02; A61K037-24 |
| US 5589463 | ECLA | A61K039/00; A61K039/35; A61K039/385; A61K047/48H4 <-- |
| US 5807832 | ECLA | A61K047/48H4 <-- |

AB Vitamin B12 is covalently bonded to biol. active substances such as hormones, proteins, antigens, haptens, and antibiotics. The B12 in the complex can still react with intrinsic factor in the intestine, so the natural uptake mechanism for B12 is utilized to deliver various otherwise nonabsorbable compds. to the circulation. Vitamin B12 was hydrolyzed to give the monocarboxylic acid, which was coupled to N-hydroxysuccinamide, and treated with Lys-6-leutinizing hormone releasing hormone (I) to give B12-I. This complex induced ovulation in mice following oral administration, whereas LHRH, orally, did not induce ovulation. A B12-neomycin complex was as effective orally in mice against Salmonella typhimurium as i.m. neomycin or i.m. B12-neomycin, whereas neomycin orally was ineffective.

ST oral absorption drug vitamin B12 complex; intestine absorption drug vitamin B12 complex; vaccine vitamin B12 complex oral absorption; hormone vitamin B12 complex oral absorption; antibiotic vitamin B12 complex oral absorption

IT Blood-brain barrier
Intestine, metabolism
(absorption by, of vitamin B12-biol. active agent complexes)

IT Pollen
(antigen of, complexes with vitamin B12, for oral administration to stimulate immune response)

IT Kapok
(antigens of, complexes with vitamin B12, for oral administration to stimulate immune response)

IT Wheat
(chaff, antigens of, complexes with vitamin B12, for oral administration to stimulate immune response)

IT Antibiotics
(complexes with vitamin B12, for oral administration)

IT **Allergens**
**Haptens**
Hormones
RL: BIOL (Biological study)
(complexes with vitamin B12, for oral delivery)

IT Albumins, compounds
Interferons
RL: BIOL (Biological study)
(complexes with vitamin B12, for oral drug delivery)
IT Canidae
Dermatophagoides pteronyssinus
Felidae
Swine
(hair of, antigen of, complexes with vitamin B12, for oral administration to stimulate immune response)
IT Placenta
(passage of substances across, vitamin B12-active agent complexes for)
IT Cholera
Coccidiosis
Diphtheria
**Haemophilus influenzae**
Influenza
Klebsiella pneumoniae
Measles
**Moraxella catarrhalis**
Mycobacterium BCG
Plague
Rubella
Salmonella typhi
Streptococcus
Streptococcus pneumoniae
Tetanus
Tuberculosis
Variola
Yellow fever
(protein derived from or immunogens against, complexes with vitamin B12 for oral vaccination)
IT Ovulation
(stimulation of, by orally administered vitamin B12-LHRH complex)
IT Allergy inhibitors
(vitamin B12 complexes with hapten or antigen for)
IT Immunomodulators
(vitamin B12-biol. active agent complexes as)
IT **Antigens**
RL: BIOL (Biological study)
(B12, complexes with vitamin, for oral delivery)
IT Proteins, specific or class
RL: BIOL (Biological study)
(complexes, with vitamin B12, for oral delivery)
IT Polysaccharides, compounds
RL: BIOL (Biological study)
(complexes, with vitamin B12, for oral drug delivery)
IT Embryo
(fetus, drug delivery in, vitamin B12-active agent complexes for)
IT **Vaccines**
(oral, vitamin B12 complexes with antigens as)
IT 6539-14-6 37434-06-3 38285-78-8 57683-72-4 57757-57-0 62069-75-4
68181-17-9 74676-97-4 74676-98-5 81069-02-5 98897-08-6
102568-45-6 111105-75-0 111105-76-1
RL: BIOL (Biological study)
(coupling agent, for preparation of vitamin B12-biol. active agent complexes)
IT 6066-82-6P
RL: PREP (Preparation)
(crosslinking agent for preparation of vitamin B12-biol. active agent complexes)
IT 68-19-9DP, Vitamin B12, complexes with bovine serum albumin
RL: PREP (Preparation)
(preparation and stimulation of immune response by, in oral administration)
IT 88326-63-0DP, Zincobinamide, complexes with biol. active agents
111070-88-3DP, complexes with biol. active agents
RL: PREP (Preparation)
(preparation of, for oral drug administration)
IT 51-17-2DP, 1H-Benzimidazole, derivs., complexes with biol. active agents
57-42-1DP, vitamin B12 complexes 58-14-0DP, vitamin B12 complexes
58-22-0DP, vitamin B12 complexes 59-47-2DP, vitamin B12 complexes
61-32-5DP, vitamin B12 complexes 61-33-6DP, vitamin B12 complexes
68-19-9DP, Vitamin B12, complexes with biol. active agents 1404-04-2DP, Neomycin, vitamin B12 complexes 1867-66-9DP, vitamin B12 complexes
4697-36-3DP, vitamin B12 complexes 7361-61-7DP, vitamin B12 complexes
9002-61-3DP, vitamin B12 complexes 9002-70-4DP, vitamin B12 complexes

9004-10-8DP, Insulin, vitamin B12 complexes 9004-66-4DP, Iron dextran, vitamin B12 complexes 9034-40-6DP, Luteinizing hormone-releasing factor, vitamin B12 complexes 13408-75-8DP, complexes with biol. active agents 13422-51-0DP, complexes with biol. active agents 13422-52-1DP, complexes with biol. active agents 13422-55-4DP, complexes with biol. active agents 13870-90-1DP, complexes with biol. active agents 14978-39-3DP, complexes with biol. active agents 15041-07-3DP, complexes with biol. active agents 15671-27-9DP, complexes with biol. active agents 18559-94-9DP, vitamin B12 complexes 20623-13-6DP, complexes with biol. active agents 23208-66-4DP, complexes with biol. active agents 23388-02-5DP, complexes with biol. active agents 52671-12-2DP, vitamin B12 complexes 57285-09-3DP, Inhibin, vitamin B12 complexes 112076-75-2DP, complexes with biol. active agents
RL: PREP (Preparation)
(preparation of, for oral drug delivery)

L44 ANSWER 17 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1981:145332 HCAPLUS
DN 94:145332
ED Entered STN: 12 May 1984
TI Antigens and vaccines containing them
IN Hours, Michel; Pourquier, Andre
PA Fr.
SO Fr. Demande, 11 pp.
CODEN: FRXXBL
DT Patent
LA French
IC A61K039-02; C12K005-00
CC 63-3 (Pharmaceuticals)
Section cross-reference(s): 15
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | FR 2446111 | A1 | 19800808 | FR 1979-1301 | 19790112 <-- |
| | FR 2446111 | B1 | 19820702 | | |
| PRAI | FR 1979-1301 | A | 19790112 <-- | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---|---|---|
| FR 2446111 | IC | A61K039-02IC C12K005-00 |

AB Antigenic complexes were isolated from organisms (Streptococcus pyogenes, S. aureus, Diplococcus pneumoniae, Neisseria catarrhalis, N. elongata, Escherichia coli, Klebsiella pneumoniae, Hemophilus influenzae, Proteus mirabilis, Pseudomonas aeruginosa) by an improved process in which the cell membrane was isolated and then solubilized by the simultaneous action of Na deoxycholate [302-95-4] (0.5-5 mg/mg proteins), lysozyme [9001-63-2] (1 mg/mL), and EDTA Na [64-02-8] (25 mM) at pH .apprx.7 for 12-24 h at 20.degree.. The extract was centrifuged and the supernatant liquid could be used directly as a source of antigens without removal of the solubilizers. The solubilizers protected the antigenic complexes against contaminant proteases. The preparation of vaccines from these antigens is discussed.
ST antigen bacteria vaccine
IT **Branhamella catarrhalis**
Escherichia coli
**Haemophilus influenzae**
Klebsiella pneumoniae
Neisseria elongata
Proteus mirabilis
Pseudomonas aeruginosa
Staphylococcus aureus
Streptococcus pneumoniae
Streptococcus pyogenes
(antigen separation from cell membranes of, for vaccine manufacture)
IT **Vaccines**
(manufacture of, antigen separation for)
IT **Antigens**
RL: PROC (Process)
(of bacteria cell membranes, separation of, for vaccines)
IT 302-95-4
RL: BIOL (Biological study)
(bacteria cell membrane solubilization by EDTA and lysozyme and, in antigen preparation)
IT 9001-63-2
RL: BIOL (Biological study)
(bacteria cell membrane solubilization by deoxycholate and EDTA and, in

antigen preparation)
IT 64-02-8
RL: BIOL (Biological study)
(bacteria cell membrane solubilization by deoxycholate and lysozyme and, in antigen preparation)

L44 ANSWER 18 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1973:470125 HCAPLUS
DN 79:70125
ED Entered STN: 12 May 1984
TI Autogenous vaccine. Preparation technique and efficiency factors
AU Cury, Rolando
CS Fac. Med. Vet. Zootec., Univ. Sao Paulo, Sao Paulo, Brazil
SO Revista de Saude Publica (**1972**), 6(4), 371-83
CODEN: RSPUB9; ISSN: 0034-8910
DT Journal
LA Portuguese
CC 63-3 (Pharmaceuticals)
AB Seeding procedures were used to obtain antigenous vaccines. Bacteria were preselected. Media were tested for sterility before seeding by heating them at 37.degree. for 24 hr. Simple media (pH 7.4), agar (pH 7.4), semisolid agar (pH 6.8-7.0), thioglycolate-dextrose, and agar-triptose were used. Cultures of Streptococcus, Staphylococcus, Enterobacteriaceae, Haemophilus, Bordetella, Pasteurella, Moraxella, Clostridium, Pseudomonas, Neisseria, and Brucella were prepared Adequate culture conditions are given in each case. I2, HCHO, and the heat were used to inactivate the bacteria to prevent damage of existing antigenous agents. Instructions to apply vaccines prepared are given.
ST bacteria vaccine
IT Bacteria
Bordetella
Brucella
Clostridium
Enterobacteriaceae
**Haemophilus**
**Moraxella**
Neisseria
Pasteurella
Pseudomonas
Staphylococcus
Streptococcus
(antigens of, vaccines of)
IT **Vaccines**
(of bacteria antigens)
IT **Antigens**
RL: BIOL (Biological study)
(of bacteria, vaccines of)

=> d all l36 tot

L36 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:741941 HCAPLUS
DN 133:320987
ED Entered STN: 20 Oct 2000
TI Conserved adhesin motif and methods of use thereof
IN Lupas, Andrei Nicolae
PA Smithkline Beecham Corporation, USA; Smithkline Beecham PLC
SO PCT Int. Appl., 85 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K038-00
ICS A61K039-00; A61K039-395; C07H021-04; C07K001-00; C07K016-00; C12N005-00; C12N007-00; C12N015-09; C12P021-08; G01N033-53
CC 15-2 (Immunochemistry)
Section cross-reference(s): 1, 3, 63
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI WO 2000061165 | A1 | 20001019 | WO 2000-US9866 | 20000413 <-- |
| W: JP, US | | | | |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| PRAI US 1999-129073P | P | 19990413 <-- | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---|---|---|
| WO 2000061165 | ICM | A61K038-00 |
| | ICS | A61K039-00; A61K039-395; C07H021-04; C07K001-00; C07K016-00; C12N005-00; C12N007-00; C12N015-09; C12P021-08; G01N033-53 |

AB Isolated polypeptides which are conserved in eubacterial extracellular domains are identified in five pathogens of the beta and gamma branches of proteobacteria. These polypeptides, alone or as fusion proteins with a second protein, are useful in the generation of antibodies or other antagonists. The peptides, fusion proteins, and antibodies are useful as vaccine components or therapeutic agents against bacterial infection or as diagnostic reagents. These polypeptides are also useful in screening methods for other agonists and antagonists which may be used in diagnosis, therapy, and as vaccines.

ST proteobacteria infection adhesin motif antibody vaccine

IT Chaperonins
RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(DnaK, fusion protein; conserved adhesin motif and fusion proteins for use as vaccine or diagnostic agent and therapeutic agent against bacterial infection)

IT Proteins, specific or class
RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(GST, fusion protein; conserved adhesin motif and fusion proteins for use as vaccine or diagnostic agent and therapeutic agent against bacterial infection)

IT Heat-shock proteins
RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(HSP 70, fusion protein; conserved adhesin motif and fusion proteins for use as vaccine or diagnostic agent and therapeutic agent against bacterial infection)

IT Proteins, specific or class
RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(NS1 (nonstructural, 1), fusion protein; conserved adhesin motif and fusion proteins for use as vaccine or diagnostic agent and therapeutic agent against bacterial infection)

IT Proteins, specific or class
RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(UspA1; conserved adhesin motif and fusion proteins for use as vaccine or diagnostic agent and therapeutic agent against bacterial infection)

IT Proteins, specific or class
RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(UspA2; conserved adhesin motif and fusion proteins for use as vaccine or diagnostic agent and therapeutic agent against bacterial infection)

IT Proteins, specific or class
RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(YadA outer membrane adhesin; conserved adhesin motif and fusion proteins for use as vaccine or diagnostic agent and therapeutic agent against bacterial infection)

IT Receptors
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(adhesin; conserved adhesin motif and fusion proteins for use as vaccine or diagnostic agent and therapeutic agent against bacterial infection)

IT **Immunostimulants**
**(adjuvants**; conserved adhesin motif and fusion proteins for use as vaccine or diagnostic agent and therapeutic agent against bacterial infection)

IT Antibodies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(anti-idiotypic; conserved adhesin motif and fusion proteins for use as vaccine or diagnostic agent and therapeutic agent against bacterial infection)

IT Infection
(bacterial; conserved adhesin motif and fusion proteins for use as vaccine or diagnostic agent and therapeutic agent against bacterial infection)

IT Drug delivery systems

(carriers; conserved adhesin motif and fusion proteins for use as vaccine or diagnostic agent and therapeutic agent against bacterial infection)

IT **Antigens**
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(composition; conserved adhesin motif and fusion proteins for use as vaccine or diagnostic agent and therapeutic agent against bacterial infection)

IT Actinobacillus
Bacteria (Eubacteria)
Drug screening
Escherichia coli
**Haemophilus**
Influenza
Labels
**Moraxella**
Mycobacterium
Neisseria
Pathogen
Protein motifs
Protein sequences
Proteobacteria
Simulation and Modeling, physicochemical
**Vaccines**
Yersinia
Yersinia pestis
(conserved adhesin motif and fusion proteins for use as vaccine or diagnostic agent and therapeutic agent against bacterial infection)

IT Fusion proteins (chimeric proteins)
RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(conserved adhesin motif and fusion proteins for use as vaccine or diagnostic agent and therapeutic agent against bacterial infection)

IT **Adhesins**
RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conserved **adhesin** motif and fusion proteins for use as vaccine or diagnostic agent and therapeutic agent against bacterial infection)

IT Antibodies
Nucleic acids
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conserved adhesin motif and fusion proteins for use as vaccine or diagnostic agent and therapeutic agent against bacterial infection)

IT Toxoids
RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(diphtheria, fusion protein; conserved adhesin motif and fusion proteins for use as vaccine or diagnostic agent and therapeutic agent against bacterial infection)

IT Immunoglobulins
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(fragments; conserved adhesin motif and fusion proteins for use as vaccine or diagnostic agent and therapeutic agent against bacterial infection)

IT .alpha.-Factor (microbial)
RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(fusion protein; conserved adhesin motif and fusion proteins for use as vaccine or diagnostic agent and therapeutic agent against bacterial infection)

IT Diagnosis
(immunodiagnosis; conserved adhesin motif and fusion proteins for use as vaccine or diagnostic agent and therapeutic agent against bacterial infection)

IT Animal cell
(mammalian; conserved adhesin motif and fusion proteins for use as vaccine or diagnostic agent and therapeutic agent against bacterial infection)

IT Antibodies
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(monoclonal; conserved adhesin motif and fusion proteins for use as vaccine or diagnostic agent and therapeutic agent against bacterial

infection)
IT Animal virus
(recombinant; conserved adhesin motif and fusion proteins for use as vaccine or diagnostic agent and therapeutic agent against bacterial infection)
IT Genetic element
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(regulatory sequence; conserved adhesin motif and fusion proteins for use as vaccine or diagnostic agent and therapeutic agent against bacterial infection)
IT Toxoids
RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(tetanus, fusion protein; conserved adhesin motif and fusion proteins for use as vaccine or diagnostic agent and therapeutic agent against bacterial infection)
IT 302579-96-0 302579-98-2
RL: PRP (Properties)
(Unclaimed; conserved adhesin motif and methods of use thereof)
IT 301857-38-5 302323-37-1 302323-38-2 302323-39-3 302323-42-8
302323-48-4 302323-49-5 302323-50-8 302323-51-9 302323-52-0
302323-53-1 302323-54-2 302323-55-3 302323-56-4 302323-57-5
302352-24-5 302798-58-9 302798-59-0
RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conserved adhesin motif and fusion proteins for use as vaccine or diagnostic agent and therapeutic agent against bacterial infection)
IT 60267-61-0P, Ubiquitin
RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(fusion protein; conserved adhesin motif and fusion proteins for use as vaccine or diagnostic agent and therapeutic agent against bacterial infection)
IT 9030-53-9, Galactokinase 9031-11-2, .beta.-Galactosidase
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(fusion protein; conserved adhesin motif and fusion proteins for use as vaccine or diagnostic agent and therapeutic agent against bacterial infection)
IT 302684-47-5 302684-48-6 302684-49-7 302684-50-0 302684-51-1
302684-52-2 302684-53-3 302684-54-4 302684-55-5 302684-56-6
302684-57-7 302684-58-8 302684-59-9 302684-60-2 302684-61-3
302684-62-4 302684-63-5 302684-64-6 302684-65-7 302684-66-8
302684-67-9 302684-68-0 302684-69-1 302684-70-4 302684-71-5
302684-72-6 302684-73-7 302684-74-8 302684-75-9 302684-76-0
302684-77-1 302684-78-2 302684-79-3 302684-80-6 302684-81-7
302684-82-8 302684-83-9 302684-84-0 302684-85-1 302684-86-2
302684-87-3 302684-88-4 302684-89-5 302684-90-8 302905-45-9
302905-47-1 302905-52-8 302905-61-9 302905-74-4 302906-00-9
302906-01-0 302906-02-1
RL: PRP (Properties)
(unclaimed protein sequence; conserved adhesin motif and methods of use thereof)
IT 302323-40-6 302323-41-7 302323-43-9 302323-44-0 302323-45-1
302323-46-2 302323-47-3 302323-58-6 302323-59-7 302323-60-0
302323-61-1 302323-62-2 302323-63-3 302323-64-4 302323-65-5
302323-66-6 302325-08-2 302325-09-3 302325-10-6 302325-11-7
302579-61-9 302579-63-1 302579-65-3 302579-67-5 302579-69-7
302579-71-1 302579-74-4 302579-81-3 302579-86-8 302579-88-0
302579-91-5 302579-99-3 302580-00-3 302580-01-4 302580-02-5
302580-04-7 302580-05-8 302580-06-9 302580-07-0 302580-08-1
302580-09-2 302580-10-5 302580-11-6 302580-12-7 302580-13-8
302580-16-1 302580-19-4 302580-20-7 302580-22-9 302580-24-1
302580-25-2 302580-26-3 302580-27-4 302580-28-5 302580-29-6
302580-30-9 302580-31-0 302580-32-1 302580-33-2 302580-34-3
302580-35-4 302580-36-5 302580-38-7 302580-39-8 302580-40-1
302580-41-2 302580-42-3 302684-46-4 302798-57-8
RL: PRP (Properties)
(unclaimed sequence; conserved adhesin motif and methods of use thereof)
RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Skurnik; Molecular Microbiology 1989, V3, P517 HCAPLUS
(2) The Board Of Regents The University Of Texas System; WO 9828333 A2 1998 HCAPLUS

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L42  ANSWER 1 OF 3  HCAPLUS  COPYRIGHT 2004 ACS on STN
AN   1999:495189  HCAPLUS
DN   131:129044
ED   Entered STN:  10 Aug 1999
TI   Vaccine composition comprising milled lyophilizate of antigenic whole
     cells
IN   Hafner, Roderick Peter
PA   Raby Limited, UK
SO   PCT Int. Appl., 33 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
IC   ICM  A61K039-00
     ICS  A61K039-02
CC   15-2 (Immunochemistry)
     Section cross-reference(s): 63
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     --------------      ----   --------    -------------------    --------
PI   WO 9938529          A1     19990805    WO 1999-GB287          19990128 <--
         W:  AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
             KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN,
             MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,
             TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU,
             TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
             CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     AU 9922897           A1     19990816    AU 1999-22897          19990128 <--
PRAI GB 1998-1870         A      19980128  <--
     WO 1999-GB287        W      19990128  <--
CLASS
 PATENT NO.       CLASS  PATENT FAMILY CLASSIFICATION CODES
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 WO 9938529       ICM    A61K039-00
                  ICS    A61K039-02
 WO 9938529       ECLA   A61K039/00; A61K039/102; A61K039/02                <--
AB   A vaccine composition for the prevention of bacterial or fungal infections of
     mucosal surfaces comprises a lyophilisate of antigenic whole cells milled
     to a particle size of from about 20 to 350<mm.  The vaccine may contain
     killed organisms such as Haemophilus influenzae or Pseudomonas aeruginosa
     and is useful, for example, for preventing the colonization by these
     organisms of patients suffering from chronic lung diseases or, in
     previously colonized patients, for preventing the occurrence of acute
     infection of the respiratory tract.
ST   vaccine lyophilized bacteria fungus yeast antigen
IT   Immunostimulants
        (adjuvants; vaccine composition comprising milled lyophilizate of
        antigenic whole cells)
IT   Infection
        (bacterial, secondary; vaccine composition comprising milled lyophilizate of
        antigenic whole cells)
IT   Drug delivery systems
        (capsules; vaccine composition comprising milled lyophilizate of antigenic
        whole cells)
IT   Eye, disease
        (conjunctivitis, bacterial; vaccine composition comprising milled
        lyophilizate of antigenic whole cells)
IT   Ear
        (disease, eustachian tube infection; vaccine composition comprising milled
        lyophilizate of antigenic whole cells)
IT   Respiratory tract
        (disease, exacerbation; vaccine composition comprising milled lyophilizate
        of antigenic whole cells)
IT   Mammary gland
     Urogenital tract
        (disease, infection; vaccine composition comprising milled lyophilizate of
        antigenic whole cells)
IT   Nose
        (diseases, infection; vaccine composition comprising milled lyophilizate of
        antigenic whole cells)
```

IT Escherichia coli
(enteropathogenic; vaccine composition comprising milled lyophilizate of antigenic whole cells)
IT Escherichia coli
(enterotoxigenic; vaccine composition comprising milled lyophilizate of antigenic whole cells)
IT Digestive tract
(gastroenteritis; vaccine composition comprising milled lyophilizate of antigenic whole cells)
IT Digestive tract
Eye, disease
Mouth
Respiratory tract
Urogenital tract
Vagina
(infection; vaccine composition comprising milled lyophilizate of antigenic whole cells)
IT Ear
(middle, infection; vaccine composition comprising milled lyophilizate of antigenic whole cells)
IT Pharynx
(nasopharynx, infection; vaccine composition comprising milled lyophilizate of antigenic whole cells)
IT **Ear**
(**otitis, otitis media**; vaccine composition comprising milled lyophilizate of antigenic whole cells)
IT Pharynx
(pharyngitis; vaccine composition comprising milled lyophilizate of antigenic whole cells)
IT Drug delivery systems
(powders; vaccine composition comprising milled lyophilizate of antigenic whole cells)
IT Drug delivery systems
(tablets; vaccine composition comprising milled lyophilizate of antigenic whole cells)
IT Tonsil
(tonsillitis; vaccine composition comprising milled lyophilizate of antigenic whole cells)
IT Digestive tract
(ulcer; vaccine composition comprising milled lyophilizate of antigenic whole cells)
IT Bacteria (Eubacteria)
Burkholderia cepacia
Candida
Candida albicans
Candida glabrata
Candida krusei
Chlamydia trachomatis
Cholera
Common cold
Corynebacterium parvum
Diarrhea
Diphtheria
Fermentation
Fungi
Granulicatella adiacens
**Haemophilus influenzae**
Helicobacter pylori
Klebsiella pneumoniae
Klebsiella pneumoniae ozaenae
Lactococcus lactis
Meningitis
Microorganism
**Moraxella catarrhalis**
Mycobacterium BCG
Mycobacterium tuberculosis
Mycosis
Neisseria gonorrhoeae
Neisseria meningitidis
Pertussis
Pneumonia
Pseudomonas
Pseudomonas aeruginosa
Salmonella typhi
Sexually transmitted diseases
Staphylococcus aureus

Streptococcus
Streptococcus mutans
Streptococcus pneumoniae
Streptococcus pyogenes
Tuberculosis
Typhoid fever
**Vaccines**
Vibrio cholerae
Virus
Yeast
(vaccine composition comprising milled lyophilizate of antigenic whole cells)

IT **Antigens**
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(vaccine composition comprising milled lyophilizate of antigenic whole cells)

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Angus, R; DEVELOPMENTS IN BIOLOGICAL STANDARDIZATION 1984, V56, P659 MEDLINE
(2) Esquisabel, A; JOURNAL OF MICROENCAPSULATION 1997, V14(5), P627 HCAPLUS

L42 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:464181 HCAPLUS
DN 131:86860
ED Entered STN: 29 Jul 1999
TI Lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals
IN Gu, Xin-Xing; Robbins, John B.
PA The Government of the United States of America, Department of Health and Human, USA
SO PCT Int. Appl., 60 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K039-02
ICS A61K039-385; C08B037-00
CC 15-2 (Immunochemistry)
Section cross-reference(s): 63

FAN.CNT 3

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI WO 9936086 | A1 | 19990722 | WO 1999-US590 | 19990112 <-- |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| CA 2315746 | AA | 19990722 | CA 1999-2315746 | 19990112 <-- |
| AU 9922212 | A1 | 19990802 | AU 1999-22212 | 19990112 <-- |
| BR 9906902 | A | 20001017 | BR 1999-6902 | 19990112 <-- |
| EP 1047447 | A1 | 20001102 | EP 1999-902170 | 19990112 <-- |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| JP 2002509115 | T2 | 20020326 | JP 2000-539859 | 19990112 <-- |
| US 6685949 | B1 | 20040203 | US 2000-610034 | 20000705 <-- |
| US 2004126381 | A1 | 20040701 | US 2003-688115 | 20031017 <-- |
| US 2004115214 | A1 | 20040617 | US 2003-729027 | 20031205 <-- |
| PRAI US 1998-71483P | P | 19980113 <-- | | |
| US 1996-16020P | P | 19960423 <-- | | |
| US 1997-842409 | A3 | 19970423 <-- | | |
| WO 1999-US590 | W | 19990112 <-- | | |
| US 2000-610034 | A2 | 20000705 | | |
| US 2001-789017 | A2 | 20010220 | | |
| US 2001-288695P | P | 20010503 | | |
| WO 2001-US32331 | A1 | 20011016 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---|---|---|
| WO 9936086 | ICM | A61K039-02 |
| | ICS | A61K039-385; C08B037-00 |

WO 9936086 ECLA A61K039/02; A61K039/385; C12P019/04 <--
US 2004126381 ECLA A61K039/02; A61K039/102; A61K039/385; C12P019/04 <--
US 2004115214 ECLA A61K039/02; A61K039/385; C12P019/04 <--

AB A conjugate vaccine for Moraxella catarrhalis comprising isolated lipooligosaccharide from which esterified fatty acids have been removed, to produce a detoxified lipooligosaccharide (dLOS), or from which lipid A has been removed, to produce a detoxified oligosaccharide (OS), which is linked to an immunogenic carrier. The immunogenic carrier is selected from the group consisting of UspA or CD derived from M. catarrhalis, tetanus toxoid, HMP derived from Haemophilus influenza, diphtheria toxoid, detoxified P. aeruginosa toxin A, cholera toxin, pertussis toxin, hepatitis B surface or core antigen, rotavirus VP 7 protein, CRM, CRM197, CRM3201 and respiratory syncytial virus F and G protein. The vaccine is useful for preventing **otitis media** and respiratory infections caused by M. catarrhalis in mammals, including humans.

ST Moraxella catarrhalis lipooligosaccharide vaccine conjugate; fatty acid lipid A removal vaccine

IT Proteins, specific or class
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(CD; lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals)

IT Proteins, specific or class
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(F; lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals)

IT Proteins, specific or class
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(UspA; lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals)

IT Glycoproteins, specific or class
Proteins, specific or class
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(VP7; lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals)

IT Alums
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(adjuvant; lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals)

IT **Immunostimulants**
(**adjuvants**; lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals)

IT **Antigens**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carrier; lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals)

IT Chemistry
(chemical compds., linker; lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals)

IT Toxins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(cholera; lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals)

IT Proteins, specific or class
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(conjugates; lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals)

IT Glycolipids
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(detoxified and conjugated; lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals)

IT Toxins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(diphtheria, CRM and CRM197 and CRM3201; lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals)

IT Toxoids
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(diphtheria; lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals)

IT Toxins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(exotoxins; lipooligosaccharide-based vaccine for prevention of

Moraxella (Branhamella) catarrhalis infections in mammals)
IT **Antigens**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hepatitis B core; lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals)
IT **Antigens**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hepatitis B surface; lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals)
IT Proteins, specific or class
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(high-mol.-weight; lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals)
IT Carriers
(immunogenic; lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals)
IT Respiratory tract
(infection; lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals)
IT Drug delivery systems
(injections, i.m.; lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals)
IT Drug delivery systems
(injections, s.c.; lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals)
IT Proteins, specific or class
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(linker; lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals)
IT Clostridium perfringens
**Haemophilus influenzae**
**Moraxella catarrhalis**
Pseudomonas aeruginosa
Respiratory syncytial virus
Rotavirus
**Vaccines**
(lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals)
IT Fatty acids, processes
Lipid A
RL: REM (Removal or disposal); PROC (Process)
(lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals)
IT G proteins (guanine nucleotide-binding proteins)
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals)
IT Lipid A
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(monophosphates, adjuvant; lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals)
IT Drug delivery systems
(mucosal; lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals)
IT Drug delivery systems
(nasal, intra-; lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals)
IT **Ear**
(**otitis, otitis media**; lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals)
IT Drug delivery systems
(parenterals; lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals)
IT Toxins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pertussis; lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals)
IT Toxoids
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(tetanus; lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals)
IT Toxins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(toxin A; lipooligosaccharide-based vaccine for prevention of Moraxella

(Branhamella) catarrhalis infections in mammals)
IT Acids, biological studies
Bases, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(treatment; lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals)
IT 99-20-7D, Trehalose, dimycolate derivative
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(adjuvant; lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals)
IT 60-32-2, .epsilon.-Aminohexanoic acid 1071-93-8, Adipic acid dihydrazide 24954-67-4, p-Nitrophenylethyl amine 32449-92-6, D-Glucuronolactone
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(linker; lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals)
IT 302-01-2, Hydrazine, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(lipooligosaccharide-based vaccine for prevention of Moraxella (Branhamella) catarrhalis infections in mammals)
RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Edebrink, P; CARBOHYDR RES 1995, V266(2), P237 HCAPLUS
(2) Gibson, B; WO 9853851 A 1998 HCAPLUS
(3) Gu, X; INFECTION AND IMMUNITY 1993, V61(5), P1873 HCAPLUS
(4) Gu, X; INFECTION AND IMMUNITY 1996, V64(10), P4047 HCAPLUS
(5) Gu, X; INFECTION AND IMMUNITY 1998, V66(5), P1891 HCAPLUS
(6) Kelly, J; ANALYTICAL BIOCHEMISTRY 1996, V233(1), P15 HCAPLUS
(7) Murphy, T; MICROBIOLOGICAL REVIEWS 1996, V60(2), P267 HCAPLUS

L42 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:128048 HCAPLUS
DN 126:211022
ED Entered STN: 26 Feb 1997
TI Vaccines for nontypeable Haemophilus influenzae
IN Green, Bruce A.; Zlotnick, Gary W.
PA Praxis Biologics, Inc., USA
SO U.S., 24 pp., Cont.-in-part of U.S. Ser. No. 320, 971, abandoned.
CODEN: USXXAM
DT Patent
LA English
IC ICM A61K039-102
ICS A61K039-385
NCL 424256100
CC 15-2 (Immunochemistry)
FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | |
|---|---|---|---|---|---|---|
| PI | US 5601831 | A | 19970211 | US 1990-491466 | 19900309 | <-- |
| | CA 2047681 | AA | 19900910 | CA 1990-2047681 | 19900309 | <-- |
| | CA 2047681 | C | 20000201 | | | |
| | EP 606921 | A1 | 19940720 | EP 1994-100492 | 19900309 | <-- |
| | EP 606921 | B1 | 20000802 | | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE | | | | | |
| | ES 2063965 | T3 | 19950116 | ES 1990-905112 | 19900309 | <-- |
| | AT 195076 | E | 20000815 | AT 1994-100492 | 19900309 | <-- |
| | US 5780601 | A | 19980714 | US 1995-447653 | 19950523 | <-- |
| | US 5955580 | A | 19990921 | US 1995-449406 | 19950523 | <-- |
| | US 6420134 | B1 | 20020716 | US 1995-448097 | 19950523 | <-- |
| PRAI | US 1989-320971 | B2 | 19890309 | <-- | | |
| | EP 1990-905112 | A3 | 19900309 | <-- | | |
| | US 1990-491466 | A3 | 19900309 | <-- | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES | |
|---|---|---|---|
| US 5601831 | ICM | A61K039-102 | |
| | ICS | A61K039-385 | |
| | NCL | 424256100 | |
| US 5601831 | ECLA | C07K014/285; C07K016/12A30; C07K019/00 | <-- |
| EP 606921 | ECLA | C07K014/285 | <-- |
| US 5780601 | ECLA | C07K014/285; C07K016/12A30; C07K019/00 | <-- |
| US 5955580 | ECLA | C07K014/285; C07K016/12A30; C07K019/00 | <-- |
| US 6420134 | ECLA | C07K014/285; C07K016/12A30; C07K019/00 | <-- |

AB Protein "e" of H. influenzae, a lipoprotein of approx. 28,000 daltons, has been purified and sequenced. Protein "e" and peptides or proteins having

a shared epitope, can be used to vaccinate against non-typable (and typable) H. influenzae and to prevent **otitis media** caused by H. influenzae. For this purpose, protein "e" or derivs. thereof can be produced in native, synthetic or recombinant forms and can be administered alone or in conjunction with other antigens of H. influenzae. Protein "e" can also be used in multivalent vaccines designed for H. influenzae and one or more other infectious organisms. Protein "e" was isolated from Haemophilus cell envelopes and characterized, polyclonal anti-protein "e" antiserum and monoclonal anti-protein "e" antibodies were prepared, protein "e" gene was isolated and nucleotide sequence was determined and mol. cloning of the gene was performed, bactericidal activity of vaccine comprising protein "e" subunit was studied, and synergy of anti-protein "e" with other antibodies were demonstrated.

ST vaccine Haemophilus influenzae protein e antibody

IT Proteins, specific or class
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(E; protein "e" and gene of Haemophilus influenza and antibodies and vaccines for nontypeable Haemophilus influenzae)

IT Proteins, specific or class
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(OMP (outer membrane protein); protein "e" and gene of Haemophilus influenza and antibodies and vaccines for nontypeable Haemophilus influenzae)

IT **Immunostimulants**
(**adjuvants**; protein "e" and gene of Haemophilus influenza and antibodies and vaccines for nontypeable Haemophilus influenzae)

IT Antibodies
RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(bactericidal; protein "e" and gene of Haemophilus influenza and antibodies and vaccines for nontypeable Haemophilus influenzae)

IT Peptides, biological studies
Proteins, general, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carrier; protein "e" and gene of Haemophilus influenza and antibodies and vaccines for nontypeable Haemophilus influenzae)

IT Toxins
Toxoids
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(diphtheria; protein "e" and gene of Haemophilus influenza and antibodies and vaccines for nontypeable Haemophilus influenzae)

IT Lipoproteins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(e; protein "e" and gene of Haemophilus influenza and antibodies and vaccines for nontypeable Haemophilus influenzae)

IT Toxins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(exotoxin A, Pseudomonas; protein "e" and gene of Haemophilus influenza and antibodies and vaccines for nontypeable Haemophilus influenzae)

IT Pseudomonas
(exotoxin A; protein "e" and gene of Haemophilus influenza and antibodies and vaccines for nontypeable Haemophilus influenzae)

IT Gene, microbial
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)
(for Haemophilus influenza protein "e"; protein "e" and gene of Haemophilus influenza and antibodies and vaccines for nontypeable Haemophilus influenzae)

IT Escherichia coli
(heat labile toxin; protein "e" and gene of Haemophilus influenza and antibodies and vaccines for nontypeable Haemophilus influenzae)

IT Toxins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(heat-labile, Escherichia coli; protein "e" and gene of Haemophilus influenza and antibodies and vaccines for nontypeable Haemophilus influenzae)

IT Antibodies
RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(monoclonal; protein "e" and gene of Haemophilus influenza and antibodies and vaccines for nontypeable Haemophilus influenzae)

IT **Ear**
(**otitis media**; protein "e" and gene of Haemophilus

influenza and antibodies and vaccines for nontypeable Haemophilus influenzae)
IT Rotavirus
(particles; protein "e" and gene of Haemophilus influenza and antibodies and vaccines for nontypeable Haemophilus influenzae)
IT Antiserums
Bacterium (genus)
DNA sequences
Fungi
**Haemophilus influenzae**
Microorganism
**Moraxella catarrhalis**
Parasite
Protein sequences
Respiratory syncytial virus
Staphylococcus aureus
Streptococcus pneumoniae
Streptococcus pyogenes
**Vaccines**
Virus
(protein "e" and gene of Haemophilus influenza and antibodies and vaccines for nontypeable Haemophilus influenzae)
IT Opsonins
RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(protein "e" and gene of Haemophilus influenza and antibodies and vaccines for nontypeable Haemophilus influenzae)
IT **Antigens**
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(protein "e" and gene of Haemophilus influenza and antibodies and vaccines for nontypeable Haemophilus influenzae)
IT Oligosaccharides, biological studies
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(protein "e" and gene of Haemophilus influenza and antibodies and vaccines for nontypeable Haemophilus influenzae)
IT Polysaccharides, biological studies
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(protein "e" and gene of Haemophilus influenza and antibodies and vaccines for nontypeable Haemophilus influenzae)
IT Fusion proteins (chimeric proteins)
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(protein "e" and gene of Haemophilus influenza and antibodies and vaccines for nontypeable Haemophilus influenzae)
IT Toxins
Toxoids
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(tetanus; protein "e" and gene of Haemophilus influenza and antibodies and vaccines for nontypeable Haemophilus influenzae)
IT 145110-32-3, Lipoprotein e (Haemophilus influenzae clone pPX513 gene hel precursor protein moiety reduced)
RL: PRP (Properties)
(amino acid sequence; protein "e" and gene of Haemophilus influenza and antibodies and vaccines for nontypeable Haemophilus influenzae)
IT 135622-17-2, DNA (Haemophilus influenzae type b strain Eagan clone pPX513 lipoprotein e gene)
RL: PRP (Properties)
(nucleotide sequence; protein "e" and gene of Haemophilus influenza and antibodies and vaccines for nontypeable Haemophilus influenzae)
IT 82197-76-0, Polyribosylribitolphosphate
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(protein "e" and gene of Haemophilus influenza and antibodies and vaccines for nontypeable Haemophilus influenzae)

=> d all l30 tot

L30 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:237317 HCAPLUS
DN 136:261813
ED Entered STN: 28 Mar 2002
TI Transferrin receptor-encoding genes from Haemophilus influenzae strains and their uses for diagnostics and medical treatment
IN **Loosmore, Sheena M.**; Harkness, Robin E.; Schryvers, Anthony B.;

Chong, Pele; Gray-Owen, Scott; Yang, Yan-ping; Murdin, Andrew D.; Klein, Michel H.
PA Aventis Pasteur Limited, Can.
SO U.S., 280 pp., Cont.-in-part of Ser. No. US 1995-483577, filed on 7 Jun 1995, now
CODEN: USXXAM
DT Patent
LA English
IC ICM A61K038-21
ICS A61K038-16; A01N063-00; C12P019-34
NCL 424256100
CC 15-2 (Immunochemistry)
Section cross-reference(s): 1, 3, 6
FAN.CNT 5

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | US 6361779 | B1 | 20020326 | US 1996-649518 | 19960517 |
| | US 5922562 | A | 19990713 | US 1994-337483 | 19941108 |
| | US 6015688 | A | 20000118 | US 1995-483577 | 19950607 |
| | CA 2223503 | AA | 19961219 | CA 1996-2223503 | 19960607 |
| | WO 9640929 | A2 | 19961219 | WO 1996-CA399 | 19960607 |
| | WO 9640929 | A3 | 19970306 | | |
| | W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI | | | | |
| | RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN | | | | |
| | AU 9661177 | A1 | 19961230 | AU 1996-61177 | 19960607 |
| | AU 716506 | B2 | 20000224 | | |
| | EP 833920 | A2 | 19980408 | EP 1996-918543 | 19960607 |
| | EP 833920 | B1 | 20040818 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| | JP 11506335 | T2 | 19990608 | JP 1997-500057 | 19960607 |
| | JP 3516688 | B2 | 20040405 | | |
| | BR 9608482 | A | 20010731 | BR 1996-8482 | 19960607 |
| | AT 274059 | E | 20040915 | AT 1996-918543 | 19960607 |
| | US 2003088086 | A1 | 20030508 | US 2002-43344 | 20020114 |
| PRAI | US 1993-148968 | B2 | 19931108 | | |
| | US 1993-175116 | B2 | 19931229 | | |
| | US 1994-337483 | A2 | 19941108 | | |
| | US 1995-483577 | A2 | 19950607 | | |
| | US 1996-649518 | A | 19960517 | | |
| | WO 1996-CA399 | W | 19960607 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---|---|---|
| US 6361779 | ICM | A61K038-21 |
| | ICS | A61K038-16; A01N063-00; C12P019-34 |
| | NCL | 424256100 |
| US 6361779 | ECLA | C07K014/285 |
| US 5922562 | ECLA | C07K014/285 |
| US 6015688 | ECLA | C07K014/285 |
| WO 9640929 | ECLA | C07K014/285 |
| US 2003088086 | ECLA | C07K014/285 |

AB Purified and isolated genes are provided which encodes transferrin receptor proteins Tbp1 and/or Tbp2 of Haemophilus influenzae type b strains DL63, Eagan, MinnA, PAK12085, and SB33 and the non-typeable strains SB12, SB29, SB30, and SB32. The nucleic acid sequence may be used to produce peptides free of contaminants derived from bacteria normally containing the Tbp1 or Tbp2 proteins for purposes of diagnostics and medical treatment. Furthermore, the nucleic acid mol. may be used in the diagnosis of infection. Also provided are recombinant Tbp1 or Tbp2 and methods for purification of the same. Live vectors expressing epitopes of transferrin receptor protein for vaccination are provided. Thus, poliovirus vectors incorporating the H. influenzae strain DL63 Tbp2 are neutralized by guinea-pig antisera raised against peptide LEGGFYGP, indicating that the viruses express this sequence in an antigenically recognizable form. Since H. influenzae Tbp2 is produced in low amts by Escherichia coli, the Eagan strain Tbp2 gene was truncated from its 3'-end using an Erase-a-base kit to produce a number of truncated analogs of Tbp2. The yield of Eagan rTbp2 is significantly increased by truncation of the C-terminal region of the protein. The infant rat model of bacteremia confirms the protective ability of anti-(truncated analogs of transferrin receptor protein Tbp2) antibodies even after removal of up to half of the

Tbp2 sequence.

ST transferrin receptor gene sequence Haemophilus; antigenicity transferrin receptor Haemophilus; vaccination transferrin receptor Haemophilus

IT Plasmid vectors
(JD-1468-29 and JD-1424-2-8, for expression in Escherichia coli; transferrin receptor-encoding genes from Haemophilus influenzae strains and their uses for diagnostics and medical treatment)

IT Gene, microbial
**Transferrin receptors**
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(Tbp1 and Tbp2; transferrin receptor-encoding genes from Haemophilus influenzae strains and their uses for diagnostics and medical treatment)

IT **Moraxella catarrhalis**
(antiserum cross-reactivity with; transferrin receptor-encoding genes from Haemophilus influenzae strains and their uses for diagnostics and medical treatment)

IT Immunoassay
(enzyme, development and cross-reactivity of; transferrin receptor-encoding genes from Haemophilus influenzae strains and their uses for diagnostics and medical treatment)

IT Diagnosis
(mol.; transferrin receptor-encoding genes from Haemophilus influenzae strains and their uses for diagnostics and medical treatment)

IT Escherichia coli
(plasmid vectors JD-1468-29 and JD-1424-2-8 for expression in; transferrin receptor-encoding genes from Haemophilus influenzae strains and their uses for diagnostics and medical treatment)

IT Viral vectors
(poliovirus type 1; transferrin receptor-encoding genes from Haemophilus influenzae strains and their uses for diagnostics and medical treatment)

IT DNA sequences
**Epitopes**
**Haemophilus influenzae**
Molecular cloning
Protein sequences
Vaccines
(transferrin receptor-encoding genes from Haemophilus influenzae strains and their uses for diagnostics and medical treatment)

IT Promoter (genetic element)
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(transferrin receptor-encoding genes from Haemophilus influenzae strains and their uses for diagnostics and medical treatment)

IT Human poliovirus 1
(vector; transferrin receptor-encoding genes from Haemophilus influenzae strains and their uses for diagnostics and medical treatment)

IT 405178-16-7P 405178-17-8P 405178-18-9P 405178-19-0P 405178-20-3P
405178-21-4P 405178-23-6P 405178-24-7P 405178-26-9P 405178-28-1P
405178-30-5P 405178-32-7P
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(amino acid sequence; transferrin receptor-encoding genes from Haemophilus influenzae strains and their uses for diagnostics and medical treatment)

IT 405178-36-1P 405178-37-2P 405178-38-3P 405178-39-4P 405178-40-7P
405178-41-8P 405178-42-9P 405178-43-0P 405178-44-1P 405178-45-2P
405178-46-3P 405178-47-4P 405178-48-5P
RL: BPN (Biosynthetic preparation); PAC (Pharmacological activity); PRP (Properties); BIOL (Biological study); PREP (Preparation)
(amino acid sequence; transferrin receptor-encoding genes from Haemophilus influenzae strains and their uses for diagnostics and medical treatment)

IT 167769-62-2 167769-63-3
RL: PAC (Pharmacological activity); PRP (Properties); BIOL (Biological study)
(antigenic peptide epitope; transferrin receptor-encoding genes from Haemophilus influenzae strains and their uses for diagnostics and medical treatment)

IT 405178-12-3P 405178-13-4P 405178-14-5P 405178-15-6P 405178-22-5P
405178-25-8P 405178-27-0P 405178-29-2P 405178-31-6P 405178-33-8P

405178-34-9P 405178-35-0P
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(nucleotide sequence; transferrin receptor-encoding genes from Haemophilus influenzae strains and their uses for diagnostics and medical treatment)

IT 405180-53-2 405180-54-3 405180-55-4 405180-56-5 405180-57-6
405180-58-7 405180-59-8 405180-60-1 405180-68-9 405180-69-0
405180-70-3 405180-71-4 405180-72-5 405180-73-6 405180-74-7
405180-75-8 405180-76-9 405180-77-0 405180-78-1
RL: PRP (Properties)
(unclaimed nucleotide sequence; transferrin receptor-encoding genes from Haemophilus influenzae strains and their uses for diagnostics and medical treatment)

IT 405180-06-5 405180-07-6 405180-08-7 405180-09-8 405180-10-1
405180-11-2 405180-12-3 405180-13-4 405180-14-5 405180-15-6
405180-16-7 405180-17-8 405180-18-9 405180-19-0 405180-20-3
405180-21-4 405180-22-5 405180-23-6 405180-24-7 405180-25-8
405180-26-9 405180-27-0 405180-28-1 405180-29-2 405180-30-5
405180-31-6 405180-32-7 405180-33-8 405180-34-9 405180-35-0
405180-36-1 405180-37-2 405180-38-3 405180-39-4 405180-40-7
405180-41-8 405180-42-9 405180-43-0 405180-44-1 405180-45-2
405180-46-3 405180-47-4 405180-48-5 405180-49-6 405180-50-9
405180-51-0 405180-52-1 405180-61-2 405180-62-3 405180-63-4
405180-64-5 405180-65-6 405180-66-7 405180-67-8
RL: PRP (Properties)
(unclaimed protein sequence; transferrin receptor-encoding genes from Haemophilus influenzae strains and their uses for diagnostics and medical treatment)

IT 161228-75-7 229032-30-8 229032-31-9 229032-32-0 229032-33-1
229032-34-2 229032-35-3 229032-36-4 229032-37-5 229032-38-6
229032-39-7 229032-40-0 229032-41-1 229032-42-2 229032-43-3
229032-44-4 229032-45-5 229032-46-6 229032-47-7 229032-48-8
229157-61-3 229157-62-4 229157-63-5 229157-64-6 229157-65-7
404572-60-7 404572-61-8 404572-62-9 404572-63-0 404572-64-1
404572-65-2 404572-66-3 404572-67-4 404572-68-5 404572-69-6
404572-70-9 404572-72-1 404572-74-3 404572-76-5 404572-78-7
404572-80-1 404572-82-3 404572-84-5
RL: PRP (Properties)
(unclaimed sequence; transferrin receptor-encoding genes from Haemophilus influenzae strains and their uses for diagnostics and medical treatment)

RE.CNT 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD
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L30 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:213747 HCAPLUS
DN 136:242991
ED Entered STN: 21 Mar 2002
TI Transferrin receptor-encoding genes from Haemophilus influenzae strains and their uses for diagnostics and medical treatment
IN **Loosmore, Sheena M.**; Harkness, Robin E.; Schryvers, Anthony B.; Chong, Pele; Gray-Owen, Scott; **Yang, Yan-Ping**; Murdin, Andrew D.; Klein, Michel H.
PA **Aventis Pasteur** Limited, Can.
SO U.S., 264 pp., Cont.-in-part of U.S. Ser. No. 175,116, abandoned.
CODEN: USXXAM
DT Patent
LA English
IC ICM C12N001-21
ICS C12N005-10; C12N015-03; C12N015-63
NCL 435252300
CC 3-3 (Biochemical Genetics)
Section cross-reference(s): 1, 6, 15
FAN.CNT 5

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | US 6358727 | B1 | 20020319 | US 1996-637654 | 19960805 |
| | WO 9513370 | A1 | 19950518 | WO 1994-CA616 | 19941107 |
| | W: AU, BR, CA, CN, FI, JP, KR, NO, NZ, RU, UA, US | | | | |
| | RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| PRAI | US 1993-148968 | B2 | 19931108 | | |
| | US 1993-175116 | B2 | 19931229 | | |
| | WO 1994-CA616 | W | 19941107 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---|---|---|
| US 6358727 | ICM | C12N001-21 |
| | ICS | C12N005-10; C12N015-03; C12N015-63 |
| | NCL | 435252300 |
| US 6358727 | ECLA | C07K014/285 |
| WO 9513370 | ECLA | C07K014/285 |

AB Purified and isolated genes are provided which encodes transferrin receptor proteins Tbp1 and/or Tbp2 of Haemophilus influenzae type b strains DL63, Eagan, MinnA, PAK12085, and SB33 and the non-typeable strains SB12, SB29, SB30, and SB32. The nucleic acid sequence may be used to produce peptides free of contaminants derived from bacteria normally containing the Tbp1 or Tbp2 proteins for purposes of diagnostics and medical treatment. Furthermore, the nucleic acid mol. may be used in the diagnosis of infection. Also provided are recombinant Tbp1 or Tbp2 and methods for purification of the same. Live vectors expressing epitopes of transferrin receptor protein for vaccination are provided. Thus, poliovirus vectors incorporating the H. influenzae strain DL63 Tbp2 are neutralized by guinea-pig antisera raised against peptide LEGGFYGP, indicating that the viruses express this sequence in an antigenically recognizable form.
ST transferrin receptor gene sequence Haemophilus; antigenicity transferrin receptor Haemophilus; vaccination transferrin receptor Haemophilus
IT Plasmid vectors
(JD-1468-29 and JD-1424-2-8, for expression in Escherichia coli; transferrin receptor-encoding genes from Haemophilus influenzae strains and their uses for diagnostics and medical treatment)
IT Gene, microbial
**Transferrin receptors**
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(Tbp1 and Tbp2; transferrin receptor-encoding genes from Haemophilus influenzae strains and their uses for diagnostics and medical treatment)
IT **Moraxella catarrhalis**
(antiserum cross-reactivity with; transferrin receptor-encoding genes

from Haemophilus influenzae strains and their uses for diagnostics and medical treatment)

IT Immunoassay
(enzyme, development and cross-reactivity of; transferrin receptor-encoding genes from Haemophilus influenzae strains and their uses for diagnostics and medical treatment)

IT Diagnosis
(mol.; transferrin receptor-encoding genes from Haemophilus influenzae strains and their uses for diagnostics and medical treatment)

IT Escherichia coli
(plasmid vectors JD-1468-29 and JD-1424-2-8 for expression in; transferrin receptor-encoding genes from Haemophilus influenzae strains and their uses for diagnostics and medical treatment)

IT Viral vectors
(poliovirus type 1; transferrin receptor-encoding genes from Haemophilus influenzae strains and their uses for diagnostics and medical treatment)

IT DNA sequences
**Epitopes**
**Haemophilus influenzae**
Molecular cloning
Protein sequences
Vaccines
(transferrin receptor-encoding genes from Haemophilus influenzae strains and their uses for diagnostics and medical treatment)

IT Promoter (genetic element)
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(transferrin receptor-encoding genes from Haemophilus influenzae strains and their uses for diagnostics and medical treatment)

IT Human poliovirus 1
(vector; transferrin receptor-encoding genes from Haemophilus influenzae strains and their uses for diagnostics and medical treatment)

IT 404796-06-1P 404796-07-2P 404796-08-3P 404796-09-4P 404796-10-7P
404796-11-8P 404796-12-9P 404796-13-0P 404796-14-1P 404796-15-2P
404796-16-3P 404796-17-4P
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(amino acid sequence; transferrin receptor-encoding genes from Haemophilus influenzae strains and their uses for diagnostics and medical treatment)

IT 167769-62-2 167769-63-3
RL: PAC (Pharmacological activity); PRP (Properties); BIOL (Biological study)
(antigenic peptide epitope; transferrin receptor-encoding genes from Haemophilus influenzae strains and their uses for diagnostics and medical treatment)

IT 404795-94-4P 404795-95-5P 404795-96-6P 404795-97-7P 404795-98-8P
404795-99-9P 404796-00-5P 404796-01-6P 404796-02-7P 404796-03-8P
404796-04-9P 404796-05-0P
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(nucleotide sequence; transferrin receptor-encoding genes from Haemophilus influenzae strains and their uses for diagnostics and medical treatment)

IT 404818-86-6 404818-87-7 404818-88-8 404818-89-9 404818-90-2
404818-91-3 404818-92-4 404818-93-5 404819-01-8 404819-02-9
404819-03-0 404819-04-1 404819-05-2 404819-06-3 404819-07-4
404819-08-5 404819-09-6 404819-10-9 404819-11-0
RL: PRP (Properties)
(unclaimed nucleotide sequence; transferrin receptor-encoding genes from Haemophilus influenzae strains and their uses for diagnostics and medical treatment)

IT 404818-39-9 404818-40-2 404818-41-3 404818-42-4 404818-43-5
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404818-49-1 404818-50-4 404818-51-5 404818-52-6 404818-53-7
404818-54-8 404818-55-9 404818-56-0 404818-57-1 404818-58-2
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404818-79-7 404818-80-0 404818-81-1 404818-82-2 404818-83-3
404818-84-4 404818-85-5 404818-94-6 404818-95-7 404818-96-8

404818-97-9 404818-98-0 404818-99-1 404819-00-7
RL: PRP (Properties)
(unclaimed protein sequence; transferrin receptor-encoding genes from Haemophilus influenzae strains and their uses for diagnostics and medical treatment)

IT 161228-75-7 229032-30-8 229032-31-9 229032-32-0 229032-33-1
229032-34-2 229032-35-3 229032-36-4 229032-37-5 229032-38-6
229032-39-7 229032-40-0 229032-41-1 229032-42-2 229032-43-3
229032-44-4 229032-45-5 229032-46-6 229032-47-7 229032-48-8
229157-61-3 229157-62-4 229157-63-5 229157-64-6 229157-65-7
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404572-70-9 404572-72-1 404572-74-3 404572-76-5 404572-78-7
404572-80-1 404572-82-3 404572-84-5
RL: PRP (Properties)
(unclaimed sequence; transferrin receptor-encoding genes from Haemophilus influenzae strains and their uses for diagnostics and medical treatment)

RE.CNT 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD
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L30 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:63846 HCAPLUS
DN 134:120915
ED Entered STN: 26 Jan 2001
TI Multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis
IN **Loosmore, Sheena M.**; **Yang, Yan-Ping**; Klein, Michel H.; **Sasaki, Ken**
PA Connaught Laboratories Limited, Can.
SO PCT Int. Appl., 58 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K039-00
CC 63-3 (Pharmaceuticals)
Section cross-reference(s): 15
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI WO 2001005424 | A2 | 20010125 | WO 2000-CA811 | 20000711 |
| WO 2001005424 | A3 | 20010802 | | |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| US 6391313 | B1 | 20020521 | US 1999-353617 | 19990715 |
| CA 2378862 | AA | 20010125 | CA 2000-2378862 | 20000711 |
| EP 1200122 | A2 | 20020502 | EP 2000-945494 | 20000711 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL | | | | |
| AU 767096 | B2 | 20031030 | AU 2000-59586 | 20000711 |
| PRAI US 1999-353617 | A | 19990715 | | |
| WO 2000-CA811 | W | 20000711 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---|---|---|
| WO 2001005424 | ICM | A61K039-00 |
| US 6391313 | ECLA | A61K039/116 |

AB A multi-valent immunogenic composition confers protection on an immunized host against infection caused by both Haemophilus influenzae and Moraxella catarrhalis. Such composition comprises at least four antigens comprising at least one antigen from Haemophilus influenzae, and at least one antigen from Moraxella catarrhalis. Three of the antigens are adhesins. High mol. weight (HMW) proteins and Haemophilus influenzae adhesin (Hia) proteins of non-typeable Haemophilus and a 200 kDa outer membrane protein of Moraxella catarrhalis comprise the adhesin components while the other antigen is a non-proteolytic analog of Hin47 protein. Each component does not impair the immunogenicity of the others. The multi-valent immunogenic composition may be combined with DTP component vaccines, which may also include non-virulent poliovirus and PRP-T, to provide a component vaccine without impairment of the immunogenic properties of the other antigens.
ST adhesin antigen vaccine Haemophilus Moraxella
IT Proteins, specific or class
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PROC (Process); USES (Uses)
(HMW1; multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)
IT Proteins, specific or class
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PROC (Process); USES (Uses)
(HMW2; multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)

Parent case

Applicants

IT Proteins, specific or class
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PROC (Process); USES (Uses)
(Hin47; multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)

IT Proteins, specific or class
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PROC (Process); USES (Uses)
(Hsf (Haemophilus surface fibril); multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)

IT Proteins, specific or class
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PROC (Process); USES (Uses)
(OMP (outer membrane protein); multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)

IT Immunostimulants
(adjuvants; multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)

IT Agglutinins and Lectins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(agglutinogens; multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)

IT Adhesins
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PROC (Process); USES (Uses)
(antigenic; multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)

IT Toxoids
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(diphtheria; multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)

IT Organelle
(fibril, surface; multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)

IT Hemagglutinins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(filamentous; multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)

IT Chinchilla
**Haemophilus influenzae**
Molecular cloning
Molecular weight distribution
**Moraxella catarrhalis**
Polyacrylamide gel electrophoresis
Vaccines
(multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)

IT **Antigens**
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PROC (Process); USES (Uses)
(multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)

IT Heat-shock proteins
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PROC (Process); USES (Uses)
(non-proteolytic; multicomponent vaccine to protect against disease

caused by Haemophilus influenzae and Moraxella catarrhalis)
IT Human poliovirus
(non-virulent; multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)
IT Ear
(otitis, otitis media; multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)
IT Agglutinins and Lectins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(pertactins; multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)
IT Toxoids
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(pertussis; multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)
IT Mutation
(substitution; multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)
IT Toxoids
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(tetanus; multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)
IT 9001-92-7, Proteinase
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(activity levels; multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)
IT 7784-30-7, Aluminum phosphate 21645-51-2, Aluminum hydroxide, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(adjuvant; multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)
IT 151-21-3, Sds, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(multicomponent vaccine to protect against disease caused by Haemophilus influenzae and Moraxella catarrhalis)

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L54 ANSWER 1 OF 29 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
AN 2004-774372 [76] WPIX
DNC C2004-271112
TI New immunogenic composition comprises a major outer membrane protein of a strain of Chlamydia pneumoniae, and a 76 kDa protein of a strain of C. pneumoniae, useful as a vaccine for treating or preventing Chlamydia infections.
DC B04 D16
IN DUNN, P L; MURDIN, A D
PA (AVET) **AVENTIS PASTEUR LTD**
CYC 1
PI US 6811783 B1 20041102 (200476)* 31 A61K039-02 <--
ADT US 6811783 B1 US 1999-391606 19990907
PRAI US 1999-391606 19990907
IC ICM **A61K039-02**
ICS **A61K039-00**; C07H021-04; C07K001-00
AB US 6811783 B UPAB: 20041125
NOVELTY - An immunogenic composition comprises a first plasmid vector comprising a first nucleotide sequence encoding a major outer membrane protein (MOMP) of a strain of Chlamydia pneumoniae, and a second plasmid vector comprising a second nucleotide sequence encoding a 76 kDa protein of a strain of C. pneumoniae, is new.

DETAILED DESCRIPTION - An immunogenic composition comprises a first plasmid vector comprising a first nucleotide sequence encoding a major outer membrane protein of a strain of C. pneumoniae, the first nucleotide sequence is selected from 3 sequences comprising 1426, 1301, or 1101 bp (SEQ ID NO. 12, 13, or 14) or encoding a MOMP having an amino acid sequence comprising 394 or 367 amino acids (SEQ ID NO. 15 or 16), and a first promoter sequence operatively coupled to the first nucleotide sequence for expression of the MOMP in a host; and a second plasmid vector comprising a second nucleotide sequence encoding a 76 kDa protein of a strain of C. pneumoniae, the second nucleotide sequence is selected from 4 sequences comprising 2545, 651, 1470, or 1389 bp (SEQ ID NO. 1, 2, 3, or 4), and a second promoter sequence operatively coupled to the second nucleotide sequence for expression of the 76 kDa protein in a host; and a pharmaceutical carrier.

All sequences are defined in the specification.

ACTIVITY - Antibacterial.

MECHANISM OF ACTION - Vaccine.

Groups of 7-9 week old male Balb/c mice were immunized intramuscularly (i.m.) and intranasally (i.n.) with plasmids pCA76kDa and pCAMOMP containing the coding sequences of C. pneumoniae 76 kDa and MOMP, respectively. Saline or plasmid vectors containing non-protective inserted chlamydial genes were given to groups of control animals. Results showed an increased protection afforded by the combination of the two constructs. It showed that mice immunized intramuscularly and intranasally with both pCA76kDa and pCAMOMP had chlamydial lung titers less than 6700 in 6 of 6 cases, where the range of values for control mice with saline were 15000-106100 IFU/lung in 20 out of 23 cases, and 12600-80600 IFU/lung in 11 out of 12 cases for mice immunized with the vectors containing non-protective genes.

USE - The immunogenic composition is useful as a vaccine for immunizing a host against disease caused by infection with a strain of Chlamydia. It is also useful for treating or preventing Chlamydia infections.

Dwg.0/5
FS CPI
FA AB; DCN
MC CPI: B04-E08; **B14-A01A**; B14-S03; B14-S09; **B14-S11B**; D05-H07

L54 ANSWER 2 OF 29 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
AN 2001-648559 [74] WPIX
DNN N2001-484575 DNC C2001-191446
TI Novel polypeptides from Chlamydia pneumoniae and genes encoding the polypeptide, useful for immunization of host e.g. human against disease caused by infection by a strain of Chlamydia.
DC B04 D16 S03
IN DUNN, P; MURDIN, A D; OOMEN, R P; WANG, J
PA (AVET) **AVENTIS PASTEUR LTD**; (DUNN-I) DUNN P; (MURD-I) MURDIN A D; (OOME-I) OOMEN R P; (WANG-I) WANG J
CYC 95
PI WO 2001075114 A2 20011011 (200174)* EN 90 C12N015-31

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
NL OA PT SD SE SL SZ TR TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK
DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ
LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD
SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
AU 2001048178 A 20011015 (200209) C12N015-31
US 2002082402 A1 20020627 (200245) C07H021-02
US 2003224004 A1 20031204 (200380) A61K039-00 <--

ADT WO 2001075114 A2 WO 2001-CA462 20010404; AU 2001048178 A AU 2001-48178 20010404; US 2002082402 A1 Provisional US 2000-194477P 20000404, US 2001-824588 20010403; US 2003224004 A1 Provisional US 2000-194477P 20000404, Cont of US 2001-824588 20010403, US 2003-359289 20030206

FDT AU 2001048178 A Based on WO 2001075114

PRAI US 2000-194477P 20000404; US 2001-824588 20010403; US 2003-359289 20030206

IC ICM **A61K039-00**; C07H021-02; C12N015-31
ICS **A61K039-118**; **A61K039-38**; **A61K039-40**; C07H021-04; C07K001-00; C07K014-00; C07K014-295; C07K016-12; C07K017-00; C12N015-11; C12N015-62; C12Q001-68; G01N033-53; G01N033-68

AB WO 200175114 A UPAB: 20011217
NOVELTY - A transmembrane polypeptide from Chlamydia, preferably C. pneumoniae comprising a 579 residue amino acid sequence, fully defined in the specification, an immunogenic fragment of at least 12 consecutive amino acids of S1, or a polypeptide modified without loss of immunogenicity and having at least 75 % identity to them, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a nucleic acid molecule (II) comprising a sequence encoding (I), a 1940 nucleotide sequence (S2), fully defined in the specification, a sequence encoding a polypeptide encoded by S2, a sequence comprising at least 38 consecutive nucleotides of them, or a sequence encoding a polypeptide having at least 75 % identity to a polypeptide encoded by S2;

(2) a nucleic acid molecule (IIa) comprising a sequence which is antisense to (II);

(3) a nucleic acid molecule (IIb) comprising a sequence encoding a fusion protein (FP) comprising a polypeptide encoded by (II) and a second polypeptide;

(4) a vaccine (IIIa) comprising a vaccine vector and at least one first nucleic acid encoding (I) or FP, which is capable of being expressed, and optionally the vaccine comprises a second nucleic acid encoding and capable of expressing an additional polypeptide which enhances the immune response to the polypeptide expressed by the first nucleic acid;

(5) a vaccine (IIIb) comprising (II)-(IIb) and a vaccine vector, where (II)-(IIb) is expressed as a polypeptide, and optionally the vaccine comprises a second nucleic acid encoding an additional polypeptide which enhances the immune response to the polypeptide expressed by (II)-(IIb);

(6) a pharmaceutical composition (PC) comprising (II)-(IIb), (IIIa) or (IIIb);

(7) a unicellular host (IV) transformed with (II)-(IIb);

(8) an isolated nucleic acid probe of 5-100 nucleotides which hybridizes under stringent conditions to S2, or its complement or antisense sequence;

(9) an isolated primer of 10-40 nucleotides which hybridizes under stringent conditions to S2, or its complement or antisense sequence;

(10) a polypeptide (Ia) encoded by (II)-(IIb);

(11) a fusion protein (FP) comprising (I) or (Ia), and a second polypeptide;

(12) producing (I) and FP;

(13) an antibody (Ab) against (I) or FP;

(14) a vaccine (IIIc) comprising (I), a polypeptide encoded by (II), or FP comprising (I) and a second polypeptide, and optionally comprising an additional polypeptide which enhances the immune response to the first polypeptide;

(15) a vaccine (IIId) comprising at least one first polypeptide selected from (I) or FP, and optionally comprising an additional polypeptide which enhances the immune response to the first polypeptide;

(16) a pharmaceutical composition comprising (I), FP, (IIIc) or Ab;

(17) a diagnostic kit comprising instructions for use and a component selected from (I), (II), FP and Ab;

(18) identifying (I) or FP which induces an immune response effective to prevent or lessen the severity of Chlamydia infection in a mammal previously immunized with polypeptide, by immunizing a mouse with (I) or FP, and inoculating the immunized mouse with Chlamydia, where (I) or FP

are identified;
(19) an expression plasmid pCACPNM643 given in the specification;
(20) a nucleic acid molecule comprising a sequence (S7); and
(21) a peptide comprising a sequence (S8).
(S7) is ataagaatgcggccgccaccatgcagaagcatccttcctttttatc or gcgccggatcccagagtcttgcagacgggg.
(S8) is AlaLysTyrArgLysLysGlnGluAlaSerValLysLysTyrGln or TyrLeuPheProGlyTyrTyrThr.
ACTIVITY - Antibacterial..
MECHANISM OF ACTION - Vaccine (claimed); gene therapy.
Groups of 7-9 week old male Balb/c mice (8-10 per group) were immunized intramuscularly (i.m.) and intranasally (i.n.) with plasmid DNA containing Chlamydia pneumoniae transmembrane protein gene. Saline or plasmid vector lacking an inserted Chlamydial gene was given to groups of control animals. At week 8, immunized mice were inoculated i.n. with 5 multiply 105 infection forming units (IFU) of C. pneumoniae strain AR39 to test their ability to limit the growth of a sublethal C. pneumoniae challenge. Lungs were taken from mice at day 9 post-challenge and immediately homogenized for analyzing the presence of Chlamydial inclusions using convalescent sera from rabbits infected with C. pneumoniae and metal-enhanced DAB as a peroxidase substrate. The results showed that mice immunized with pCACPNM643 had Chlamydial lung titers less than 60000 in 5/6 cases at day 9 (mean 37993), and values for control mice sham immunized with saline was 53100-315200 IFU/lung (mean 141593) at day 9.
USE - (I), (II), (III), PC and Ab are useful for preventing or treating Chlamydia infection. (I), (II) and Ab are useful for detecting Chlamydia infection, by assaying a body fluid of a mammal to be tested (claimed). (I) and (II) are useful as vaccines. The probes are used in diagnostic tests as capture or detection probes and in hybridization techniques, and primers are useful in amplification techniques for use in diagnostic methods. (I) is useful for detecting the presence of anti-Chlamydia antibodies in blood sample.
Dwg.0/4
FS CPI EPI
FA AB; DCN
MC CPI: B04-C01B; B04-C01C; B04-E01; B04-E03F; B04-E05; B04-E08; B04-F0100E; B04-F10A; **B04-G01**; B04-N03A0E; B04-P01A; B11-C08; B11-C08E2; B11-C08E5; B12-K04A4; B12-K04E; B12-K04F; **B14-A01A** ; B14-S03; **B14-S11B**; D05-C12; D05-H07; D05-H09; D05-H12A; D05-H12D1; D05-H12E; D05-H14; D05-H17A6
EPI: S03-E14H; S03-E14H4

L54 ANSWER 3 OF 29 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
AN 2001-648558 [74] WPIX
DNN N2001-484574 DNC C2001-191445
TI Novel Chlamydia myosin heavy chain homolog polypeptide and polynucleotide for preventing, detecting and treating Chlamydia infections in mammals, in particular humans.
DC B04 D16 S03
IN DUNN, P; MURDIN, A D; OOMEN, R P; WANG, J
PA (AVET) **AVENTIS PASTEUR LTD**; (DUNN-I) DUNN P; (MURD-I) MURDIN A D; (OOME-I) OOMEN R P; (WANG-I) WANG J
CYC 95
PI WO 2001075113 A2 20011011 (200174)* EN 83 C12N015-31
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
AU 2001048177 A 20011015 (200209) C12N015-31
US 2002132994 A1 20020919 (200264) C07H021-02
ADT WO 2001075113 A2 WO 2001-CA461 20010404; AU 2001048177 A AU 2001-48177 20010404; US 2002132994 A1 Provisional US 2000-194475P 20000404, US 2001-824568 20010403
FDT AU 2001048177 A Based on WO 2001075113
PRAI US 2000-194475P 20000404; US 2001-824568 20010403
IC ICM C07H021-02; C12N015-31
ICS **A61K039-118**; **A61K039-40**; A61K048-00; C07H021-04; C07K014-295; C07K016-12; C12N015-11; C12N015-62; C12Q001-68; G01N033-53; G01N033-68
AB WO 200175113 A UPAB: 20021031
NOVELTY - An isolated myosin heavy chain homolog polypeptide (I) from Chlamydia, especially C. pneumoniae having a 254 residue amino acid sequence (S1), fully defined in the specification, its immunogenic

fragment comprising at least 12 consecutive amino acids or a polypeptide which has been modified without loss of immunogenicity and which has 75 % sequence identity to (I), is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a nucleic acid molecule (II) comprising a nucleic acid sequence chosen from a sequence which encodes (I), a 965 base pair sequence (S2), fully defined in the specification, a sequence which encodes a polypeptide encoded by (S2), a sequence comprising 38 consecutive nucleotides from (II) and a sequence which encodes a polypeptide which is 75 % identical in amino acid sequence to the polypeptide encoded by (S2);

(2) a nucleic acid molecule (III) comprising a nucleic acid sequence which is anti-sense to (II);

(3) a fusion protein (IV) comprising (I) and a second polypeptide;

(4) a nucleic acid molecule (V) comprising a nucleic acid sequence which encodes (IV);

(5) a nucleic acid molecule chosen from (II), (III) and (V) operatively linked to one or more expression control sequences;

(6) a vaccine (VI), comprising:

(a) a vaccine vector and (II), (III) or (V), where each nucleic acid is capable of being expressed and the vaccine optionally comprises a second nucleic acid encoding and capable of expressing an additional polypeptide which enhances the immune response to the polypeptide expressed by the nucleic acids; or

(b) (I) or (IV), optionally comprising an additional polypeptide which enhances the immune response to (I) or (IV);

(7) a unicellular host (VII) transformed with (II), (III) or (V);

(8) an isolated nucleic acid probe of 5-100 nucleotides which hybridizes under stringent conditions to (II), its complement or anti-sense sequence;

(9) an isolated primer of 10-40 nucleotides which hybridizes under stringent conditions to (II), its complement or anti-sense sequence;

(10) a polypeptide encoded by (II) or (V);

(11) producing (I) or (IV), comprising culturing (VII);

(12) an antibody (VIII) against (I) or (IV);

(13) a pharmaceutical composition (IX) comprising (II), (III), (V), (I), (VI) or (VIII);

(14) a diagnostic kit comprising instructions for use and (II), (III), (V), (I), (IV) or (VIII);

(15) identifying (I) or (IV) which induces an immune response effective to prevent or lessen the severity of Chlamydia infection in a mammal previously immunized with polypeptide, by immunizing a mouse with (I) or (IV) and inoculating the immunized mouse with Chlamydia, where (I) or (IV) which prevents or lessens the severity of Chlamydia infection in the immunized mouse compared to a non-immunized control mouse is identified;

(16) expression plasmid pCACPNM559 containing the myosin heavy chain homolog gene, as shown in the specification;

(17) a nucleic acid molecule of sequence (S7); and

(18) a peptide having the sequence (S8).

(S7) is ATAAGAATGCGGCCGCCACCATGCATGACGCACTTCTAAGCA or GCGCCGGATCCCTACAGCTGCGCGACGACGACG.

(S8) is ArgValLysLysGluHisGlnLysGluLeu, LysMetAspGluPheAsnAlaLeuThr, TrpGlnGluSerGlnValAsnAlaGlnGluAsnSerThrAlaLysArgArgArgArgArg, AlaLeuLeuGluGlnArgThrGluLeu or IleLeuTyrTrpGlnGluSerGlnVal.

ACTIVITY - Antibiotic.

MECHANISM OF ACTION - Vaccine.

The effect of C. pneumoniae myosin heavy chain homolog gene in protecting mice against an intranasal challenge of C. pneumoniae was studied. Strain AR-39 was used in Balb/c mice as a challenge infection model to examine the capacity of Chlamydia gene products delivered as naked DNA to elicit a protective response against a sublethal C. pneumoniae lung infection. Protective immunity was defined as an accelerated clearance of pulmonary infection. Groups of 7-9 week old male Balb/c mice were immunized intramuscularly (i.m.) plus intranasally (i.n.) with plasmid DNA containing the C. pneumoniae myosin heavy chain homolog gene (pCACPNM559). Saline or the plasmid vector lacking an inserted chlamydial gene was given to groups of control animals. For i.m. immunization, alternate left and right quadriceps were injected with 100 micro g of DNA in 50 micro l of phosphate buffered saline (PBS) on three occasions at 0, 3 and 6 weeks. For i.n. immunization, anesthetized mice were aspirated 50 micro l of PBS containing 50 micro g DNA on three occasions at 0, 3 and 6 weeks. At week 8, immunized mice were inoculated i.n. with 5 multiply 105 infection forming units (IFU) of C. pneumoniae, strain AR39 in 100 micro l of SPG buffer to test their ability to limit the growth of a sublethal C. pneumoniae challenge. Lungs were taken from

mice at day 9 post-challenge and immediately homogenized. Dilutions of the homogenate were assayed for the presence of infectious Chlamydia. The results showed that the mice immunized i.n. and i.m. with pCACPNM559 had chlamydial lung titers less than 49000 in 5 of 6 cases at day 9 and for control mice sham immunized with saline the value was 53100-315200 IFU/lung at day 9.

USE - (I)-(V) and (VIII) are useful for detecting Chlamydia infection by assaying a body fluid of a mammal with the components. (VI) and (IX) are useful for preventing and treating Chlamydia infection (claimed), in mammals, such as humans. The nucleic acid molecules are useful for producing (I), in the construction of vaccine vectors such as poxviruses, which are further useful for preventing and/or treating Chlamydia infection and in the construction of attenuated Chlamydia strains that can over-express the nucleic acid molecules or express it in a non-toxic, mutated form. (VI) is effective in preventing and/or treating Chlamydia infection for e.g. infection caused by C. trachomatis, C. psittaci, C. pneumoniae or C. pecorum. Probes which hybridize to (II) are useful in diagnostic tests, as capture of detection probes. (VIII) is useful in affinity chromatography for purifying (I) and in prophylactic or therapeutic passive immunization methods.

Dwg.0/4

FS CPI EPI

FA AB; DCN

MC CPI: B04-C01B; B04-C01D; B04-C01G; B04-E01; B04-E03F; B04-E05; B04-E08; B04-F10A; B04-G07; B04-N03A0E; B04-P01A; B11-C08; B11-C08E2; B11-C08E5; B12-K04A4; B12-K04E; B12-K04F; **B14-A01A**; B14-S03; **B14-S11B**; D05-C12; D05-H07; D05-H09; D05-H12A; D05-H12D1; D05-H12E; D05-H14; D05-H17A6

EPI: S03-E14H; S03-E14H4

L54 ANSWER 4 OF 29 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN

AN 2001-648557 [74] WPIX

DNN N2001-484573 DNC C2001-191444

TI Novel Chlamydia glutamate binding protein and polynucleotide for preventing, detecting and treating Chlamydia infections in mammals, in particular humans.

DC B04 D16 S03

IN DUNN, P; MURDIN, A D; OOMEN, R P; WANG, J

PA (AVET) **AVENTIS PASTEUR LTD**; (DUNN-I) DUNN P; (MURD-I) MURDIN A D; (OOME-I) OOMEN R P; (WANG-I) WANG J

CYC 95

PI WO 2001075112 A2 20011011 (200174)* EN 86 C12N015-31

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2001048176 A 20011015 (200209) C12N015-31

US 2002094965 A1 20020718 (200254) A61K048-00

ADT WO 2001075112 A2 WO 2001-CA460 20010404; AU 2001048176 A AU 2001-48176 20010404; US 2002094965 A1 Provisional US 2000-194472P 20000404, US 2001-824206 20010403

FDT AU 2001048176 A Based on WO 2001075112

PRAI US 2000-194472P 20000404; US 2001-824206 20010403

IC ICM A61K048-00; C12N015-31

ICS **A61K039-118**; **A61K039-40**; C07H021-04; C07K014-295; C07K016-12; C07K019-00; C12N001-21; C12N015-62; C12N015-74; C12Q001-68; G01N033-569

AB WO 200175112 A UPAB: 20011217

NOVELTY - An isolated glutamate binding protein (I) from Chlamydia, especially C. pneumoniae having a 250 residue amino acid sequence (S1), fully defined in the specification, its immunogenic fragment comprising at least 12 consecutive amino acids or a polypeptide which has been modified without loss of immunogenicity and which has 75 % sequence identity to (I), is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a nucleic acid molecule (II) comprising a nucleic acid sequence chosen from a sequence which encodes (I), a 953 base pair sequence (S2), fully defined in the specification, a sequence which encodes a polypeptide encoded by (S2), a sequence comprising 38 consecutive nucleotides from (II) and a sequence which encodes a polypeptide which is 75 % identical in amino acid sequence to the polypeptide encoded by (S2);

(2) a nucleic acid molecule (III) comprising a nucleic acid sequence which is anti-sense to (II);

(3) a fusion protein (IV) comprising (I) and a second polypeptide;
(4) a nucleic acid molecule (V) comprising a nucleic acid sequence which encodes (IV);
(5) a nucleic acid molecule chosen from (II), (III) and (V) operatively linked to one or more expression control sequences;
(6) a vaccine (VI), comprising:
(a) a vaccine vector and any one of the above nucleic acids, where each nucleic acid is capable of being expressed and the vaccine optionally comprises a second nucleic acid encoding and capable of expressing an additional polypeptide which enhances the immune response to the polypeptide expressed by the nucleic acid; or
(b) (I) or (IV), optionally comprising an additional polypeptide which enhances the immune response to (I) or (IV);
(7) a unicellular host (VII) transformed with (II), (III) or (V);
(8) an isolated nucleic acid probe of 5-100 nucleotides which hybridizes under stringent conditions to (II), its complement or anti-sense sequence;
(9) an isolated primer of 10-40 nucleotides which hybridizes under stringent conditions to (II), its complement or anti-sense sequence;
(10) a polypeptide encoded by (II) or (V);
(11) producing (I) or (IV), comprising culturing (VII);
(12) an antibody (VIII) against (I) or (IV);
(13) a pharmaceutical composition (IX) comprising (II), (III), (V), (I), (VI) or (VIII);
(14) a diagnostic kit comprising instructions for use and (II), (III), (V), (I), (IV) or (VIII);
(15) identifying (I) or (IV) which induces an immune response effective to prevent or lessen the severity of Chlamydia infection in a mammal previously immunized with polypeptide, by immunizing a mouse with (I) or (IV) and inoculating the immunized mouse with Chlamydia, where (I) or (IV) which prevents or lessens the severity of Chlamydia infection in the immunized mouse compared to a non-immunized control mouse is identified;
(16) expression plasmid pCACPNM653 containing the glutamate binding protein gene;
(17) a nucleic acid molecule of sequence (S7); and
(18) a peptide having the sequence (S8).
(S7) is ATAAGAATGCGGCCGCCACCATGAAGATAAAATTTTCTTGGAAGG or GCGCCGGATCCCGGGAAGACGATACCGCTGTTTT. (S8) is GluAsnLeuAspAspLysLysThrGlnGly, LysThrArgArgSerGlyLysTyrAspAlaIleLysGlnArgTyrArgLeuPro, AlaLeuLeuAlaProValIleGluVal or PheLeuAsnAspLeuValSerGluIle.
ACTIVITY - Antibiotic.
MECHANISM OF ACTION - Vaccine.
The effect of C. pneumoniae glutamate binding protein gene in protecting mice against an intranasal challenge of C. pneumoniae was studied. Strain AR-39 Grayston et al (1990) Journal of Infectious Diseases 161:618-625 was used in Balb/c mice as a challenge infection model to examine the capacity of Chlamydia gene products delivered as naked DNA to elicit a protective response against a sublethal C. pneumoniae lung infection. Protective immunity was defined as an accelerated clearance of pulmonary infection. Groups of 7-9 week old male Balb/c mice were immunized intramuscularly (i.m.) plus intranasally (i.n.) with plasmid DNA containing the C. pneumoniae glutamate binding protein gene (pCACPNM653). Saline or the plasmid vector lacking an inserted chlamydial gene was given to groups of control animals. For i.m. immunization, alternate left and right quadriceps were injected with 100 micro g of DNA in 50 micro l of phosphate buffered saline (PBS) on three occasions at 0, 3 and 6 weeks. For i.n. immunization, anesthetized mice were aspirated 50 micro l of PBS containing 50 micro g DNA on three occasions at 0, 3 and 6 weeks. At week 8, immunized mice were inoculated i.n. with 5 multiply 105 infection forming units (IFU) of C. pneumoniae, strain AR39 in 100 micro l of SPG buffer to test their ability to limit the growth of a sublethal C. pneumoniae challenge. Lungs were taken from mice at day 9 post-challenge and immediately homogenized. Dilutions of the homogenate were assayed for the presence of infectious Chlamydia. The results showed that the mice immunized i.n. and i.m. with pCACPNM653 had chlamydial lung titers less than 60000 in 4 of 6 cases at day 9 and for control mice sham immunized with saline the value was 53100-315200 IFU/lung at day 9.
USE - (I)-(V) and (VIII) are useful for detecting Chlamydia infection by assaying a body fluid of a mammal with the components (claimed). (VI) and (IX) are useful for preventing or treating Chlamydia infection (claimed), in mammals, such as humans. The nucleic acid molecules are useful for producing (I), in the construction of vaccine vectors such as poxviruses, which are further useful for preventing and/or treating Chlamydia infection and in the construction of attenuated Chlamydia strains that can over-express the nucleic acid molecules or express it in

a non-toxic, mutated form. (VI) is effective in preventing and/or treating Chlamydia infection for e.g. infection caused by C. trachomatis, C. psittaci, C. pneumoniae or C. pecorum. Probes which hybridize to (II) are useful in diagnostic tests, as capture of detection probes. (VIII) is useful in affinity chromatography for purifying (I) and in prophylactic or therapeutic passive immunization methods.

Dwg.0/4

FS CPI EPI

FA AB; DCN

MC CPI: B04-C01B; B04-C01D; B04-C01G; B04-E01; B04-E03F; B04-E05; B04-E08; B04-F0100E; B04-F10A; B04-N03A0E; B11-C07A; B11-C08E2; B11-C08E5; B12-K04A4; B12-K04E; B12-K04F; **B14-A01A**; B14-S03; **B14-S11B**; D05-C12; D05-H07; D05-H09; D05-H11; D05-H12A; D05-H12D1; D05-H12E; D05-H14; D05-H17A6

EPI: S03-E14H4

L54 ANSWER 5 OF 29 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN

AN 2001-648556 [74] WPIX

DNN N2001-484572 DNC C2001-191443

TI Novel isolated myosin heavy chain polypeptide from Chlamydia pneumoniae and polynucleotides encoding them, useful for treating or preventing Chlamydia infection in mammals.

DC B04 D16 S03

IN DUNN, P; MURDIN, A D; OOMEN, R P; WANG, J

PA (AVET) **AVENTIS PASTEUR LTD**; (DUNN-I) DUNN P; (MURD-I) MURDIN A D; (OOME-I) OOMEN R P; (WANG-I) WANG J

CYC 95

PI WO 2001075111 A2 20011011 (200174)* EN 83 C12N015-31

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2001048172 A 20011015 (200209) C12N015-31

US 2003100706 A1 20030529 (200337) A61K039-02 <--

ADT WO 2001075111 A2 WO 2001-CA456 20010404; AU 2001048172 A AU 2001-48172 20010404; US 2003100706 A1 Provisional US 2000-194471P 20000404, US 2001-824584 20010403

FDT AU 2001048172 A Based on WO 2001075111

PRAI US 2000-194471P 20000404; US 2001-824584 20010403

IC ICM **A61K039-02**; C12N015-31

ICS **A61K039-118**; **A61K039-40**; A61K048-00; C07H021-04; C07K014-195; C07K014-295; C07K016-12; C07K019-00; C12N001-21; C12N015-62; C12N015-74; C12Q001-68; G01N033-569

AB WO 200175111 A UPAB: 20011217

NOVELTY - An isolated myosin heavy chain polypeptide (I) from Chlamydia pneumoniae, comprising 168 residue amino acid sequence (S2), fully defined in the specification, an immunogenic fragment having 12 consecutive amino acids of (S2), or a sequence of (S2) or its fragment which has been modified without loss of immunogenicity and having 75 % identity to above mentioned polypeptide sequences, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a nucleic acid molecule (II) comprising a nucleic acid sequence which encodes (I), comprising:

(a) a 707 nucleotide sequence (S1), fully defined in specification;

(b) a sequence which encodes a polypeptide encoded by (S1);

(c) a sequence comprising at least 38 consecutive nucleotides of (a) or (b), or a sequence which encodes a polypeptide that is 75 % identical in amino acid sequence to polypeptide encoded by (S1);

(2) a nucleic acid molecule (III) comprising a nucleic acid sequence which is antisense to (II);

(3) a nucleic acid molecule (IV) comprising a nucleic acid sequence which encodes fusion protein that comprises a polypeptide encoded by (II) and a second polypeptide;

(4) a nucleic acid molecule ((I)-(IV)) operatively linked to one or more expression control sequences;

(5) a vaccine (V) comprising a vaccine vector and (II);

(6) a vaccine (VI) comprising a vaccine vector and at least one first nucleic acid encoding a fusion protein that comprises a polypeptide encoded by (S1), a polypeptide encoded by a nucleic acid comprising at least 38 consecutive nucleotides from (S1), a polypeptide which is 75 % identical to the amino acid sequence to the polypeptide encoded by (S1), or is (I); and

(7) a vaccine (VII) comprising (II), (III), or (V) operatively linked

to expression control sequences, as first nucleic acid and a vaccine vector, the vaccine optionally comprises a second nucleic acid encoding an additional polypeptide which enhances the immune response to the polypeptide expressed by the first;

(8) a unicellular host (VIII) transformed with a nucleic acid molecule ((II)-(IV)) operatively linked to expression control sequences;

(9) an isolated nucleic acid probe (IX) of 5-100 nucleotides which hybridizes under stringent conditions to (S1);

(10) an isolated primer (X) of 10-40 nucleotides which hybridizes under stringent conditions to (S1);

(11) a polypeptide encoded by (II), (III), (IV) or a nucleic acid molecule ((II)-(IV)) operatively linked to expression control sequences;

(12) a fusion protein (XI) comprising (I) and a second polypeptide;

(13) preparation of (I) or (XI);

(14) an antibody (XII) against (I) or (XI);

(15) a vaccine (XIII) comprising at least one first polypeptide (FP1) encoded by (S1), a polypeptide encoded by a nucleic acid comprising at least 38 consecutive nucleotides of (S1), a polypeptide which is 75 % identical to the amino acid sequence to the polypeptide encoded by (S1), or is (I), where the vaccine optionally comprises an additional polypeptide which enhances the immune response to FP1;

(16) a vaccine (XIV) comprising a fusion protein which comprises FP1 and a second polypeptide, where the vaccine optionally comprises an additional polypeptide which enhances the immune response to FP1;

(17) a vaccine (XV) comprising (I) or (XI) as the first polypeptide, and an additional polypeptide which enhances the immune response to the first polypeptide;

(18) a diagnostic kit comprising instructions for use and a component (II), (III), (V) operatively linked to expression control sequences, (I), (XI) or (XII);

(19) identifying (I) or (XI) which prevents or lessens the severity of Chlamydia infection in a mammal previously immunized with polypeptide involves immunizing a mouse with the polypeptide or fusion protein and inoculating the immunized mouse with Chlamydia;

(20) expression plasmid pCACPNM760;

(21) a nucleic acid molecule having a sequence (S7); and

(22) a peptide having a sequence (S8).

(S7) is ataagaatgcggccgccaccatggcaaaatatccactagagcc or gcgccggatcccgcttccccctgattcacg.

(S8) is LysArgArgLysGluGluGluLysThrArgLeuHisLysGluGluTrpMet, LeuArgGlnLysLysLysArgGluSerGlyGlySer or GlnLeuSerGluGluGluGluLysVal.

ACTIVITY - Antibiotic.

MECHANISM OF ACTION - Vaccine.

Strain AR-39 was used in Balb/c mice as a challenge infection model to examine the capacity of Chlamydia gene products delivered as naked DNA to elicit a protective response against sublethal C. pneumoniae lung infections. Groups of 7-9 week old male Balb/c mice were immunized intramuscularly (i.m.) plus intranasally (i.n.) with plasmid DNA containing the C. pneumoniae myosin heavy chain gene. For i.m. immunization, alternate left and right quadriceps were injected with 100 micro g of DNA. For i.n. immunization, anesthetized mice were aspirated 50 micro l of phosphate buffered saline (PBS) containing 50 micro g DNA on three occasions at 0, 3 and 6 weeks. At week 8, immunized mice were inoculated i.n. with 5 multiply 105 infection forming units (IFU) of C. pneumoniae, strain AR39 in 100 micro l of SPG buffer to test their ability to limit the growth of a sublethal C. pneumoniae challenge. Lungs were taken from mice at day 9 post-challenge and homogenized in SPG buffer. Dilutions of the homogenate were assayed for Chlamydia by inoculation onto monolayers of susceptible cells. The inoculum was centrifuged onto the cells, then the cells were incubated for three days at 35 deg. C in the presence of 1 micro g/ml cycloheximide. After incubation the monolayers were fixed and stained using convalescent sera from rabbits infected with C. pneumoniae. Results showed that mice immunized with i.n. and i.m. with pCACPNM760 had chlamydial lung titers less than 40000 in 3 of 6 cases at day 9, whereas the range of values for control mice sham immunized with saline was 20800-323300 IFU/lung at day 9.

USE - (II), (III), (IV) or a nucleic acid molecule ((II), (III), (V)) operatively linked to expression control sequences, the vaccines and pharmaceutical compositions are useful for treating or preventing Chlamydia infection. (II), (III), (IV) or a nucleic acid molecule ((II)-(IV)) operatively linked to expression control sequences, (I), (XI) or (XII) is also useful for detecting Chlamydia infection. (All claimed). (I) is useful for detecting the presence of anti-Chlamydia antibodies in a biological sample. (II) is useful for producing (I), for constructing vaccine vectors, and as a vaccine agent, or in the construction of attenuated Chlamydia strains that can overexpress (II). (IX) is useful as

capture or detection probe. (IX) and (X) are useful for detecting and/or identifying the presence of Chlamydia in a biological material. (XII) is useful for purifying (I) by antibody-based affinity chromatography. (XII) can also be used in therapeutic and prophylactic passive immunization methods. (XII) used for detecting Chlamydia in biological sample.
Dwg.0/4

FS CPI EPI
FA AB; DCN
MC CPI: B04-C01B; B04-C01C; B04-C01D; B04-C01G; B04-E01; B04-E03F; B04-E05; B04-E08; B04-F0100E; B04-F10A; B04-G07; B04-N03A0E; B11-C08; B11-C08E2; B11-C08E5; B12-K04A4; B12-K04E; B12-K04F; **B14-A01A** ; B14-S03; **B14-S11B**; D05-C12; D05-H07; D05-H09; D05-H12A; D05-H12D1; D05-H12E; D05-H14; D05-H17A6
EPI: S03-E14H4

L54 ANSWER 6 OF 29 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
AN 2001-343797 [36] WPIX
DNC C2001-106482
TI A Chlamydia polypeptide, an amino acid transporter gene, for the treatment and prevention of Chlamydia infection.
DC B04 C06 D16
IN DUNN, P; MURDIN, A D; OOMEN, R P; WANG, J
PA (AVET) **AVENTIS PASTEUR LTD**
CYC 94
PI WO 2001036457 A2 20010525 (200136)* EN 81 C07K014-00
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
AU 2001013757 A 20010530 (200152) C07K014-00
ADT WO 2001036457 A2 WO 2000-CA1346 20001110; AU 2001013757 A AU 2001-13757 20001110
FDT AU 2001013757 A Based on WO 2001036457
PRAI US 1999-165615P 19991115
IC ICM C07K014-00
AB WO 200136457 A UPAB: 20010628
NOVELTY - A Chlamydia polypeptide which is encoded by (I), a 468 amino acid (aa) sequence, given in the specification, is new
DETAILED DESCRIPTION - The polypeptide may also be a fusion protein comprising (I) and an additional polypeptide.
INDEPENDENT CLAIMS are included for the following:
(1) a nucleic acid molecule which encodes a polypeptide, a C. pneumoniae, an amino acid transporter gene comprising:
(i) a 1607 base pair (bp) nucleic acid sequence defined in the specification;
(ii) an immunogenic fragment comprising at least 12 aa from a polypeptide encoded by (a); and
(iii) a polypeptide of (a) or (b) which has been modified to improve its immunogenicity, where the peptide is at least 75% identical in aa sequence to (a) or (b).
(2) a nucleic acid sequence selected from:
(i) 1564 bp sequence; a sequence including (a);
(ii) a sequence which encodes a polypeptide encoded by (i);
(iii) a sequence comprising at least 38 consecutive nucleotides from (i) or (ii);
(iv) a sequence which encodes a polypeptide which is at least 75% identical in aa sequence to the polypeptide encoded by (i);
(3) a nucleic acid molecule comprising a nucleic acid sequence which is antisense to (1);
(4) a nucleic acid molecule comprising a sequence encoding a fused protein which is encoding a nucleic acid (1) and an additional polypeptide;
(5) a vaccine comprising a nucleic acid of (1) and a vaccine vector where each nucleic acid is expressed as a polypeptide. The vaccine optionally comprises a second nucleic acid encoding an additional polypeptide which enhances the immune response to the polypeptide is expressed by the first;
(6) a unicellular host transformed with the nucleic acid molecule (4);
(7) a nucleic acid probe of 5 to 100 nucleotides which hybridizes under stringent conditions to the nucleic acid molecule (1) or to its homolog or complementary anti-sense sequence;
(8) a primer of 10 to 40 nucleotides which hybridizes under stringent conditions to the nucleic acid molecule of (1) or to its homolog or

complementary anti-sense sequence;
(9) the production of the polypeptide (I) comprising the culturing of (6);
(10) an antibody against polypeptide(s) of the invention;
(11) a vaccine comprising at least one first polypeptide of the invention, and optionally a second polypeptide which enhances the immune response to the first;
(12) the treatment or prevention of Chlamydia infection using:
(i) a nucleic acid of (1-4);
(ii) a vaccine of (5) or (11);
(iii) a polypeptide of the invention; and/or
(iv) (11);
(13) the detection of Chlamydia comprising the step of assaying a body fluid of a mammal with a component selected from 12 (i), (iii) and/or (11);
(14) a diagnostic kit comprising instructions for use and 12 (i), (iii) or (11);
(15) the identification of a polypeptide of the invention which induces a response effective to prevent or lessen the extent of Chlamydia infection in a mammal previously immunized with a polypeptide comprising:
(i) immunizing a mouse with the polypeptide; and
(ii) innoculuating the immunized mouse with Chlamydia; where the polypeptide which prevents or lessens the severity of Chlamydia infection in the immunized mouse compared to a non-immunized control mouse
(16) expression plasmid pCABk297.
ACTIVITY - Antibacterial.
MECHANISM OF ACTION - Vaccine. Gene therapy.
USE - The polypeptide, an amino acid transporter is useful for the treatment, prevention and diagnosis of Chlamydia infection, preferably Chlamydia pneumoniae infection (claimed), in human and veterinary applications.
ADVANTAGE - A protective vaccine against Chlamydia pneumoniae is useful to prevent infection which leads to chronic bronchitis and sinusitis. There is also a correlation between infection and atherosclerosis, with epidemiological studies showing connections between the incidence of heart attack, coronary artery and carotid artery disease with organisms being detected in the fatty streaks of the coronary, carotid, peripheral arteries and aorta. The infection may also be linked with the high incidence of lower respiratory tract infections and mortality in infants and children in tropical regions of the world. The preventative vaccine reduces the need for antibiotic treatment.
Dwg.0/3

FS CPI
FA AB; DCN
MC CPI: B04-C01G; B04-E02F; B04-E03F; B04-E05; B04-E06; B04-E08; **B04-G01**; B04-N03A; B11-C08E; B12-K04A4; B12-K04F; **B14-A01A**; C04-C01G; C04-E02F; C04-E03F; C04-E05; C04-E06; C04-E08; **C04-G01**; C04-N03A; C11-C08E; C12-K04A4; C12-K04F; **C14-A01A**; D05-C11; D05-H07; D05-H11; D05-H12D; D05-H12D1; D05-H12E; D05-H14; D05-H17A; D05-H17B

L54 ANSWER 7 OF 29 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
AN 2001-343796 [36] WPIX
DNC C2001-106481
TI A Chlamydia polypeptide, OppB, for the treatment and prevention of Chlamydia infection.
DC B04 C06 D16
IN DUNN, P; MURDIN, A D; OOMEN, R P; WANG, J
PA (AVET) **AVENTIS PASTEUR LTD**
CYC 94
PI WO 2001036456 A2 20010525 (200136)* EN 75 C07K014-00
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
AU 2001013756 A 20010530 (200152) C07K014-00
ADT WO 2001036456 A2 WO 2000-CA1345 20001110; AU 2001013756 A AU 2001-13756 20001110
FDT AU 2001013756 A Based on WO 2001036456
PRAI US 1999-164918P 19991115
IC ICM C07K014-00
AB WO 200136456 A UPAB: 20010628
NOVELTY - A Chlamydia polypeptide which is encoded by (I) a 314 amino acid (aa) sequence, given in the specification, is new.

DETAILED DESCRIPTION - The polypeptide may also be a fusion protein comprising (I) and an additional polypeptide.

INDEPENDENT CLAIMS are included for the following:

(1) a nucleic acid molecule which encodes a polypeptide, a C. pneumoniae, OppB gene comprising:

(i) a 1145 base pair (bp) nucleic acid sequence defined in the specification;

(ii) an immunogenic fragment comprising at least 12 aa from a polypeptide encoded by (a); and

(iii) a polypeptide of (a) or (b) which has been modified to improve its immunogenicity, where the peptide is at least 75% identical in aa sequence to (a) or (b).

(2) a nucleic acid sequence selected from

(i) a sequence including (a);

(ii) a sequence which encodes a polypeptide encoded by (i);

(iii) a sequence comprising at least 38 consecutive nucleotides from (i) or (ii);

(iv) a sequence which encodes a polypeptide which is at least 75% identical in aa sequence to the polypeptide encoded by (i);

(3) a nucleic acid molecule comprising a nucleic acid sequence which is antisense to (1);

(4) a nucleic acid molecule comprising a sequence encoding a fused protein which is encoding a nucleic acid (1) and an additional polypeptide;

(5) a vaccine comprising a nucleic acid of (1) and a vaccine vector where each nucleic acid is expressed as a polypeptide. The vaccine optionally comprises a second nucleic acid encoding an additional polypeptide which enhances the immune response to the polypeptide is expressed by the first;

(6) a unicellular host transformed with the nucleic acid molecule (3);

(7) a nucleic acid probe of 5 to 100 nucleotides which hybridizes under stringent conditions to the nucleic acid molecule (a) or to its homolog or complementary anti-sense sequence;

(8) a primer of 10 to 40 nucleotides which hybridizes under stringent conditions to the nucleic acid molecule of (a) or to its homolog or complementary anti-sense sequence;

(9) the production of the polypeptide (I) comprising the culturing of (6);

(10) antibody against polypeptide(s) of the invention;

(11) a vaccine comprising at least one first polypeptide of the invention, and optionally a second polypeptide which enhances the immune response to the first;

(12) the treatment of Chlamydia infection using:

(i) a nucleic acid of (1-4);

(ii) a vaccine of (5) or (12);

(iii) a polypeptide of the invention; and/or

(iv) (10);

(13) the detection of Chlamydia comprising the step of assaying a body fluid of a mammal with a component selected from 12 (i), (iii) and/or (iv);

(14) a diagnostic kit comprising instructions for use and 12 (i), (iii) or (iv);

(15) the identification of a polypeptide of the invention which induces a response effective to prevent or lessen the extent of Chlamydia infection in a mammal previously immunized with a polypeptide comprising:

(i) immunizing a mouse with the polypeptide; and

(ii) innoculuating the immunized mouse with Chlamydia;

(16) the expression plasmid pCAI434.

ACTIVITY - Antibacterial.

MECHANISM OF ACTION - Vaccine. Groups of 7-9 week old male Balb/c mice (n = 8-10 / group) were immunized intramuscularly (i.m) and intranasally (i.n.) with plasmid DNA containing the Chlamydia pneumonia OppB gene. Saline or the plasmid vector without the insert was given to the control animals. For i.m immunization, alternate left and right quadriceps were injected with 100 micro g of DNA in phosphate buffered saline (PBS) at three timepoints, 0, 3 and 6 weeks. For i.n immunization, anaesthetized mice were aspirated with 50 micro g of DNA in PBS at the three timepoints. A 8 weeks immunized mice were innoculated i.n with 5 X 105 IFU of Chlamydia pneumonia, strain AR39 in 100 micro l of SPG buffer. Lungs were taken from mice at day 9 post challenge, homogenised and the homegenate examined for the presence of Chlamydial inclusions. The mean bacterial load (inclusion forming units per lung) was 83378.6 for the saline control; 77000 for pCAI1021 (p = 0.7671) ; and 27450 for pCAI434 (p = 0.0028), where pCAI1021 and pCAI434 are active constructs.

USE - The polypeptide of the invention is useful for the treatment,

prevention and diagnosis of Chlamydia infection (claimed), preferably Chlamydia pneumonia infection, In human and veterinary applications.

ADVANTAGE - A protective vaccine against Chlamydia pneumonia is useful to prevent infection which leads to chronic bronchitis and sinusitis. There is also a correlation between infection and atherosclerosis, with epidemiological studies showing connections between the incidence of heart attack, coronary artery and carotid artery disease with organisms being detected in the fatty streaks of the coronary, carotid, peripheral arteries and aorta.

Dwg.0/4

FS CPI

FA AB; DCN

MC CPI: B04-C01G; B04-E02F; B04-E03F; B04-E05; B04-E06; B04-E08; B04-F0100E; **B04-G01**; B04-N03A; B11-C08E; B12-K04A4; **B14-A01A**; C04-C01G; C04-E02F; C04-E03F; C04-E05; C04-E06; C04-E08; C04-F01; **C04-G01**; C04-N03A; C11-C08E; C12-K04A4; C12-K04F; D05-C11; D05-H07; D05-H09; D05-H11; D05-H12A; D05-H12B; D05-H12D1; D05-H12D2; D05-H12E; D05-H14; D05-H17A; D05-H17B

L54 ANSWER 8 OF 29 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN

AN 2001-328102 [34] WPIX

DNN N2001-236077 DNC C2001-100610

TI New lpxB polypeptides useful for treating, preventing or diagnosing Chlamydia infections, particularly infections caused by Chlamydia pneumonia, e.g. bronchitis, cough, asthma.

DC B04 D16 S03

IN DUNN, P; MURDIN, A D; OOMEN, R P; WANG, J

PA (AVET) **AVENTIS PASTEUR LTD**

CYC 94

PI WO 2001021810 A1 20010329 (200134)* EN 80 C12N015-54

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2000073982 A 20010424 (200141) C12N015-54

ADT WO 2001021810 A1 WO 2000-CA1085 20000915; AU 2000073982 A AU 2000-73982 20000915

FDT AU 2000073982 A Based on WO 2001021810

PRAI US 1999-154461P 19990917

IC ICM C12N015-54

ICS A61K031-711; A61K038-45; **A61K039-40**; C07K016-40; C12N009-10; C12N015-62; C12N015-85; G01N033-53

AB WO 200121810 A UPAB: 20011217

NOVELTY - A novel polypeptide (I) comprises:

(A) a fully defined sequence (IIa) of 604 amino acids (aa) given in the specification;

(B) an immunogenic fragment (IIb) comprising at least 12 consecutive aa from (IIa);

(C) (IIa) or (IIb) which has been modified to improve its immunogenicity and is at least 75% identical to (IIa) or (IIb);

(D) a sequence encoded by a sequence antisense to those in (A) - (C); or

(E) a polypeptide of (A) - (C) and an additional polypeptide.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a nucleic acid (II) encoding a polypeptide comprising:

(a) a fully defined sequence (IIa) of 604 amino acids (aa) given in the specification;

(b) an immunogenic fragment (IIb) comprising at least 12 consecutive aa from (IIa); or

(c) (IIa) or (IIb) which has been modified to improve its immunogenicity and is at least 75% identical to (IIa) or (IIb), is new. (II) has a sequence of 2023 base pairs (bp) fully defined in the specification, or at least 38 consecutive nucleotides (nt) of this sequence.

(2) a nucleic acid (III) comprising a sequence antisense to (II);

(3) a nucleic acid (IV) encoding a fusion protein comprising a polypeptide encoded by (II) and an additional polypeptide;

(4) vaccines (V) comprising:

(a) at least one (II) a vaccine vector, and optionally a second nucleic acid encoding an additional polypeptide that enhances the immune response to the polypeptide expressed by the first nucleic acid; or

(b) at least one (I) and optionally a second polypeptide that enhances the immune response to the first polypeptide;

(5) a unicellular host (VI) transformed with (II);
(6) a nucleic acid probe (VIIa) of 5-100 nt or a primer (VIIb) of 10-40 nt, which hybridizes under stringent conditions to a 2023-bp sequence, or its homologue, complement, or antisense sequence;
(7) producing (I) by culturing (VI);
(8) an antibody (VIII) immunospecific for (I);
(9) preventing or treating (M1) Chlamydia infection using the nucleic acids, vaccines, pharmaceutical composition, polypeptides or antibodies of the invention;
(10) detecting (M2) Chlamydia infection by assaying a body fluid of a mammal with the nucleic acids, polypeptides or antibody of the invention;
(11) a diagnostic kit (IX) comprising instructions for use and the nucleic acids, polypeptides or antibodies of the invention;
(12) identifying (M3) a (I) that induces immune response effective to prevent or lessen the severity of Chlamydia infection in a mammal previously immunized with the polypeptide by:
(a) immunizing a mouse with the polypeptide; and
(b) inoculating the immunized mouse with Chlamydia, where the polypeptide prevents or lessens the severity of Chlamydia infection in the immunized mouse compared to a non-immunized;
(13) expression plasmid (X), pCABk1043;
(14) a nucleic acid (XI) with a 45 or 34 bp sequence given in the specification; and
(15) polypeptide 1pxB (XII) from Chlamydia.
ACTIVITY - Antimicrobial.
MECHANISM OF ACTION - Vaccine. 7-9 week old male Balb/c mice were immunized intramuscularly plus intranasally with plasmid DNA containing the coding sequence of C. pneumonia 1pxB or plasmid vector lacking an inserted chlamydial gene. Immunization was given at 0. 3 and 6 weeks, and at week 8, mice were inoculated with 5 multiply 105 IFU of C. pneumoniae strain AR39. 9 days post-challenge, lungs were taken and homogenized in SPG buffer. Dilutions of homogenate were assayed for the presence of infectious chlamydia by inoculation onto monolayers of susceptible cells. Cells were incubated for 3 days, and monolayers were fixed with formalin and methanol, and immunoperoxidase stained for the presence of chlamydial inclusions using convalescent sera from rabbits infected with C. pneumoniae. Mice immunized with pCABk1043 had chlamydial lung titers less than 37,000 in 5 of 6 cases at day 9, while the range of values for the controls was 13,600-458,100 IFU/lung.
USE - (I), (II), (V) and (VIII) are useful as pharmaceutical compositions (claimed). The nucleic acids encoding the Chlamydia 1pxB polypeptides are useful as a vaccine in preventing, treating or diagnosing Chlamydia infections, particularly those caused by C. pneumoniae, including respiratory diseases, e.g. cough, sore throat, bronchitis, asthma. The polynucleotides, including DNA or RNA may be used in producing the encoded polypeptide in a recombinant host system, in the construction of vaccine vectors such as pox viruses, as vaccine agent, and in constructing attenuated Chlamydia strains that can over-express a polynucleotide or express it in a non-toxic mutated form. The polypeptides may also be used as diagnostic reagent for detecting the presence of anti-Chlamydia antibodies, and in the preparation of a medicament for treating or preventing Chlamydia infection.
Dwg.0/4

FS CPI EPI
FA AB; DCN
MC CPI: B04-C01G; B04-E03F; B04-E05; B04-E06; B04-E08; B04-F01; B04-G07; B04-N03A; B11-C07A; B11-C08E2; B11-C08E5; B12-K04A4; B12-K04F; **B14-A01A**; **B14-S11B**; D05-C11; D05-H04; D05-H07; D05-H08; D05-H11; D05-H12A; D05-H12C; D05-H12D1; D05-H12D2; D05-H12E; D05-H14; D05-H17A5; D05-H17C
EPI: S03-E14H4

L54 ANSWER 9 OF 29 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
AN 2001-328101 [34] WPIX
DNN N2001-236076 DNC C2001-100609
TI New general secretion pathway protein E polypeptides and nucleic acids encoding the polypeptides useful for treating, preventing or diagnosing Chlamydia infections, particularly infections caused by Chlamydia pneumoniae.
DC B04 D16 S03
IN DUNN, P; MURDIN, A D; OOMEN, R P; WANG, J
PA (AVET) **AVENTIS PASTEUR LTD**
CYC 94
PI WO 2001021805 A1 20010329 (200134)* EN 79 C12N015-31
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM
DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE
SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2000073986 A 20010424 (200141) C12N015-31

ADT WO 2001021805 A1 WO 2000-CA1089 20000915; AU 2000073986 A AU 2000-73986 20000915

FDT AU 2000073986 A Based on WO 2001021805

PRAI US 1999-154595P 19990917

IC ICM C12N015-31

ICS A61K031-711; **A61K039-118**; **A61K039-40**;
C07K014-295; C07K016-12; C12N015-62; C12N015-85; G01N033-53

AB WO 200121805 A UPAB: 20010620

NOVELTY - A nucleic acid (I) encoding a polypeptide comprising:

(a) a fully defined sequence of 496 amino acids given in the specification;

(b) an immunogenic fragment comprising at least 12 consecutive amino acids from (a); or

(c) (a) or (b) which has been modified to improve its immunogenicity and which is at least 75% identical to (a) or (b), is new.

DETAILED DESCRIPTION - The nucleic acid (I) has a sequence of 1691 bp fully defined in the specification, or has at least 38 consecutive nucleotides of this sequence.

INDEPENDENT CLAIMS are also included for the following:

(1) a nucleic acid comprising a sequence antisense to (I);

(2) a nucleic acid encoding a fusion protein comprising a polypeptide encoded by (I) and an additional polypeptide;

(3) vaccines comprising at least one first nucleic acid expressed as a polypeptide, a vaccine vector, and optionally a second nucleic acid encoding an additional polypeptide that enhances the immune response to the polypeptide expressed by the first nucleic acid;

(4) a unicellular host transformed with the nucleic acid;

(5) a nucleic acid probe of 5-100 nucleotides or a primer of 10-40 nucleotides, which hybridizes under stringent conditions to a 1691-bp sequence, or its homologue, complement, or antisense sequence;

(6) a polypeptide encoded by the nucleic acids;

(7) vaccines comprising at least one first polypeptide and optionally a second polypeptide that enhances the immune response to the first polypeptide;

(8) a fusion polypeptide comprising a polypeptide of (6) and an additional polypeptide;

(9) a method of producing a polypeptide of (6) by culturing a unicellular host of (4);

(10) an antibody against the polypeptide of (6);

(11) pharmaceutical compositions comprising a polypeptide or an antibody;

(12) a method of preventing or treating Chlamydia infection using the above nucleic acids, vaccines, pharmaceutical composition, polypeptides or antibodies;

(13) a method of detecting Chlamydia infection by assaying a body fluid of a mammal with the above nucleic acids, polypeptides or antibody;

(14) a diagnostic kit comprising instructions for use and the above nucleic acids, polypeptides or antibodies;

(15) a method for identifying a polypeptide that induces immune response effective to prevent or lessen the severity of Chlamydia infection in a mammal previously immunized with the polypeptide by:

(a) immunizing a mouse with the polypeptide; and

(b) inoculating the immunized mouse with Chlamydia, where the polypeptide prevents or lessens the severity of Chlamydia infection in the immunized mouse compared to a non-immunized;

(16) expression plasmid pCAI284;

(17) the nucleic acid

(I) ATAAGAATGC GGCCGCCACC ATGGCTGCTA GTATTTTAT;

(II) CCCCAAGCTT CATCACAGCG CTTGGTAAC.

(18) having a 39 or 29 bp sequence given in the specification; and

(19) general secretion pathway protein E from Chlamydia, preferably C. pneumoniae.

ACTIVITY - Antimicrobial.

MECHANISM OF ACTION - Vaccine. 7-9 week old male Balb/c mice were immunized intramuscularly plus intranasally with plasmid DNA containing the coding sequence of C. pneumoniae general secretion pathway protein E or plasmid vector lacking an inserted chlamydial gene. Immunization was given at 0. 3 and 6 weeks, and at week 8, mice were inoculated with 5 multiply 105 IFU of C. pneumoniae strain AR39. 9 days post-challenge, lungs were taken and homogenized in SPG buffer. Dilutions of homogenate were assayed for the presence of infectious chlamydia by inoculation onto

monolayers of susceptible cells. Cells were incubated for 3 days, and monolayers were fixed with formalin and methanol, and imunoperoxidase stained for the presence of chlamydial inclusions using convalescent sera from rabbits infected with C. pneumoniae. Mice immunized with pCAI284 had chlamydial lung titers less than 50,000 in 5 of 6 cases at day 9, while the range of values for the controls was 18,200-247,100 IFU/lung.

USE - The nucleic acids encoding the Chlamydia general secretion pathway protein E polypeptides are useful as a vaccine in preventing, treating or diagnosing Chlamydia infections, particularly those caused by C. pneumoniae, including respiratory diseases, e.g. cough, sore throat, bronchitis, asthma. The polynucleotides, including DNA or RNA may be used in producing the encoded polypeptide in a recombinant host system, in the construction of vaccine vectors such as poxviruses, as vaccine agent, and in constructing attenuated Chlamydia strains that can over-express a polynucleotide or express it in a non-toxic mutated form. The polypeptides may also be used as diagnostic reagent for detecting the presence of anti-Chlamydia antibodies, and in the preparation of a medicament for treating or preventing Chlamydia infection.

Dwg.0/4

FS CPI EPI

FA AB; DCN

MC CPI: B04-C01G; B04-E02F; B04-E03F; B04-E04; B04-E06; B04-E08; B04-F01; B04-F02; **B04-G01**; B04-G21; B04-G22; B11-C07; B11-C08; B11-C08E5; B12-K04A; B12-K04F; **B14-A01A**; B14-K01; **B14-S11**; D05-C07; D05-C11; D05-H07; D05-H08; D05-H09; D05-H12A; D05-H12B; D05-H12C; D05-H12D1; D05-H12D2; D05-H12D6; D05-H12E; D05-H14B2; D05-H17A1; D05-H17B; D05-H17B6; D05-H17C

EPI: S03-E14H4

L54 ANSWER 10 OF 29 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN

AN 2001-316102 [33] WPIX

DNN N2001-227243 DNC C2001-097308

TI New Npt2cp (ADP/ATP translocase) polypeptides and nucleic acids encoding the polypeptides useful for treating, preventing or diagnosing Chlamydia infections, particularly infections caused by Chlamydia pneumoniae.

DC B04 D16 S03

IN DUNN, P; MURDIN, A D; OOMEN, R P; WANG, J

PA (AVET) **AVENTIS PASTEUR LTD**

CYC 95

PI WO 2001021803 A1 20010329 (200133)* EN 79 C12N015-31

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2000073984 A 20010424 (200141) C12N015-31

EP 1220924 A1 20020710 (200253) EN C12N015-31

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI

ADT WO 2001021803 A1 WO 2000-CA1087 20000915; AU 2000073984 A AU 2000-73984 20000915; EP 1220924 A1 EP 2000-962124 20000915, WO 2000-CA1087 20000915

FDT AU 2000073984 A Based on WO 2001021803; EP 1220924 A1 Based on WO 2001021803

PRAI US 1999-154326P 19990917

IC ICM C12N015-31

ICS A61K031-711; **A61K039-118**; **A61K039-40**; C07K014-295; C07K016-12; C12N015-62; C12N015-85; G01N033-53

AB WO 200121803 A UPAB: 20010615

NOVELTY - A nucleic acid (I) encoding a polypeptide comprising:

(a) a fully defined sequence of 540 amino acids given in the specification;

(b) an immunogenic fragment comprising at least 12 consecutive amino acids from (a); or

(c) (a) or (b) which has been modified to improve its immunogenicity and which is at least 75% identical to (a) or (b), is new.

DETAILED DESCRIPTION - The nucleic acid has 1823 bp sequence given in the specification, or comprises at least 38 consecutive nucleotides of this sequence.

INDEPENDENT CLAIMS are also included for the following:

(1) a nucleic acid comprising a sequence antisense to (I);

(2) a nucleic acid encoding a fusion protein comprising a polypeptide encoded by (I) and an additional polypeptide;

(3) vaccines comprising at least one first nucleic acid expressed as a polypeptide, a vaccine vector, and optionally a second nucleic acid encoding an additional polypeptide that enhances the immune response to

the polypeptide expressed by the first nucleic acid;
(4) a unicellular host transformed with the nucleic acid;
(5) a nucleic acid probe of 5-100 nucleotides or a primer of 10-40 nucleotides, which hybridizes under stringent conditions to an 1823-bp sequence, or to its homologue, complement, or antisense sequence;
(6) a polypeptide encoded by the nucleic acids;
(7) a fusion polypeptide comprising a polypeptide of (6) and an additional polypeptide;
(8) a method of producing a polypeptide of (6) by culturing a unicellular host of (4);
(9) an antibody against the polypeptide of (6);
(10) pharmaceutical compositions comprising a polypeptide or an antibody;
(11) a method of preventing or treating Chlamydia infection using the above nucleic acids, vaccines, pharmaceutical composition, polypeptides or antibodies;
(12) a method of detecting Chlamydia infection by assaying a body fluid of a mammal with the above nucleic acids, polypeptides or antibody;
(13) a diagnostic kit comprising instructions for use and the above nucleic acids, polypeptides or antibodies;
(14) a method for identifying a polypeptide that induces immune response effective to prevent or lessen the severity of Chlamydia infection in a mammal previously immunized with the polypeptide by: (a) immunizing a mouse with the polypeptide; and (b) inoculating the immunized mouse with Chlamydia, where the polypeptide prevents or lessens the severity of Chlamydia infection in the immunized mouse compared to a non-immunized;
(15) expression plasmid pCABk663;
(16) a nucleic acid having a 42 or 33 bp sequence given in the specification; and (17) Npt2cp (ADP/ATP translocase) from Chlamydia pneumoniae.
ACTIVITY - Antimicrobial.
MECHANISM OF ACTION - Vaccine. 7-9 week old male Balb/c mice were immunized intramuscularly plus intranasally with plasmid containing the coding sequence of Chlamydia pneumoniae Npt2cp (ADP/ATP translocase) or plasmid vector lacking an inserted chlamydial gene. Immunization was given at 0. 3 and 6 weeks, and at week 8, mice were inoculated with 5 multiply 105 IFU of C. pneumoniae strain AR39. 9 days post-challenge, lungs were taken and homogenized in SPG buffer. Dilutions of homogenate were assayed for the presence of infectious chlamydia by inoculation onto monolayers of susceptible cells. Cells were incubated for 3 days, and monolayers were fixed with formalin and methanol, and imunoperoxidase stained for the presence of chlamydial inclusions using convalescent sera from rabbits infected with C. pneumoniae. Mice immunized with pCABk663 had chlamydial lung titers less than 36,000 in 5 of 6 cases at day 9, while the range of values for the controls was 13,600-458,100 IFU/lung.
USE - The nucleic acids encoding the Chlamydia Npt2cp (ADP/ATP translocase) polypeptides are useful as a vaccine in preventing, treating or diagnosing Chlamydia infections, particularly those caused by C. pneumoniae, including respiratory diseases, e.g. cough, sore throat, bronchitis, asthma. The polynucleotides, including DNA or RNA may be used in producing the encoded polypeptide in a recombinant host system, in the construction of vaccine vectors such as poxviruses, as vaccine agent, and in constructing attenuated Chlamydia strains that can over-express a polynucleotide or express it in a non-toxic mutated form. The polypeptides may also be used as diagnostic reagent for detecting the presence of anti-Chlamydia antibodies, and in the preparation of a medicament for treating or preventing Chlamydia infection.
Dwg.0/4
FS CPI EPI
FA AB; DCN
MC CPI: B04-C01G; B04-E02; B04-E02E; B04-E03E; B04-E06; B04-E08; B04-F01; **B04-G01**; B04-G03; B04-L01; B11-C08E; B12-K04A4; **B14-A01A**; D05-C03; D05-C07; D05-H07; D05-H09; D05-H11; D05-H12A; D05-H12B; D05-H12C; D05-H12D2; D05-H12E; D05-H14; D05-H17A; D05-H17B; D05-H17C
EPI: S03-E14H4

L54 ANSWER 11 OF 29 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
AN 2001-257992 [26] WPIX
DNN N2001-183971 DNC C2001-077792
TI Novel Chlamydia pneumoniae lpdA protein and polynucleotides encoding them useful as component of vaccines for treating Chlamydia infections, and for detecting Chlamydia infection in the body fluid of a mammal.
DC B04 D16 S03
IN DUNN, P; MURDIN, A D; OOMEN, R P; WANG, J

PA (AVET) **AVENTIS PASTEUR LTD**
CYC 94
PI WO 2001021802 A1 20010329 (200126)* EN 78 C12N015-31
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
AU 2000073983 A 20010424 (200141) C12N015-31
ADT WO 2001021802 A1 WO 2000-CA1086 20000915; AU 2000073983 A AU 2000-73983 20000915
FDT AU 2000073983 A Based on WO 2001021802
PRAI US 1999-154325P 19990917
IC ICM C12N015-31
ICS **A61K039-118**; C07K014-295; C07K016-12; C07K019-00; C12N005-10; C12N015-62; C12N015-63; C12Q001-68; G01N033-53
AB WO 200121802 A UPAB: 20010515
NOVELTY - A polypeptide (I) which is (i) a polypeptide having fully defined Chlamydia pneumoniae lpdA protein sequence of 461 amino acids (S2) given in the specification, (ii) an immunogenic fragment of (S2) comprising 12 consecutive amino acids or (iii) polypeptide of (i) or (ii) which has been modified to improve its immunogenicity, and having 75% identity to amino acid sequence of (i) or (ii), is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a nucleic acid molecule (II) comprising a nucleic acid sequence which encodes (I);

(2) a nucleic acid molecule (III) comprising a nucleic acid sequence which is antisense to (II);

(3) a nucleic acid molecule (IV) comprising a nucleic acid sequence which encodes a fusion protein, comprising (I) encoded by (II) and an additional polypeptide;

(4) a vaccine (V) comprising (I), (II) or (IV) and a vaccine vector, where each nucleic acid is expressed as a polypeptide. The vaccine optionally comprising a second nucleic acid encoding an additional polypeptide which enhances the immune response to the polypeptide expressed by the above mentioned nucleic acid;

(5) a pharmaceutical composition comprising (II), (II) or (IV) and a carrier;

(6) a unicellular host transformed with (II), (III) or (IV) which is operatively linked to one or more expression control sequences;

(7) a nucleic acid probe (VI) of 5 to 100 nucleotides which hybridizes under stringent conditions to a fully defined C.pneumoniae lpdA gene sequence of 1586 nucleotides (S1) as given in the specification, its homolog or complementary or anti-sense sequence;

(8) a primer of 10 to 40 nucleotides which hybridizes under stringent conditions to (S1), or to a homolog or complementary or anti-sense sequence of the nucleic acid molecule;

(9) a polypeptide encoded by (II) or (IV);

(10) a fusion polypeptide (VII) comprising (I) and an additional polypeptide;

(11) preparation of (I);

(12) an antibody (VIII) against (I);

(13) a vaccine (IX) comprising (I) or (VII), and a carrier and optionally comprising a second polypeptide which enhances the immune response to (I);

(14) a pharmaceutical composition comprising (I), (VII), (IX) or (VIII) and a carrier;

(15) a diagnostic kit comprising instructions for use and (II), (III), (IV), (I), (VII) or (VIII);

(16) identifying (I) or (VII) which induces an immune response effective to prevent or lessen the severity of Chlamydia infection in a mammal previously immunized with polypeptide involves immunizing a mouse with (I) or (VII) and inoculating the immunized mouse with Chlamydia;

(17) expression plasmid pCABk892;

(18) a nucleic acid molecule having a fully defined sequence of ataagaatgcggccgccaccatgacccaagaatttgattgtgttg (S3) or cggggtaccgtgacttaggagggaagtgtaaag (S4); and

(19) lpdA protein from C.pneumoniae.

ACTIVITY - Antibacterial. The biological activity of (I) was tested in mice. Groups of 7 to 9 week old male Balb/c mice (6 to 10 per group) were immunized intramuscularly (i.m.) plus intranasally (i.n.) with plasmid DNA containing the coding sequence of C.pneumoniae lpdA. At week 8, immunized mice were inoculated i.n. with 5 multiply 105 IFU of C.pneumoniae, strain AR39 in 100 mu l of SPG buffer to test their ability

to limit the growth of a sublethal C.pneumoniae challenge. Lungs were taken from the mice at day 9 post-challenge and immediately homogenized in SPG buffer (7.5% sucrose, 5 mM glutamate, 12.5 mM phosphate pH 7.5). Dilutions of the homogenate were assayed for the presence of infectious Chlamydia by inoculation onto monolayers of susceptible cells. The inoculum was centrifuged onto the cells, then the cells were incubated for three days at 35 deg. C in the presence of 1 mu g/ml cycloheximide. After incubation the monolayers were fixed with formalin and methanol then immunoperoxidase stained for the presence of chlamydial inclusions using convalescent sera from rabbits infected with C.pneumoniae and metal-enhanced DAB as a peroxidase substrate. Results showed that mice immunized i.n. and i.m. with pCABk892 had chlamydial lung titers less than 25,000 in 6 of 6 cases at day 9 whereas the range of values for control mice sham immunized with saline was 13,600-458,100 IFU/lung at day 9.

MECHANISM OF ACTION - Vaccine; Gene therapy.

USE - (II), (III), (IV), (V), (VIII) or (IX) or the pharmaceutical compositions as described above are useful for preventing or treating Chlamydia (C.trachomatis, C.psittaci, C.pneumonia or C.pecorum) infection. (I), (II), (III), (IV), (VII) or (VIII) is useful as diagnostic reagents for detecting Chlamydia infection which involves assaying a body fluid of a mammal to be tested for the above mentioned components. (II) is useful for producing (I) (claimed). The vaccine vectors, (I), (II), (VIII) are useful in the preparation of a medicament for preventing and/or treating Chlamydia infection. (VI) is useful in diagnostic tests as capture or detection probes. (VI) is thus useful as an agent for detecting and/or identifying presence of Chlamydia in the biological material. The primers derived from (II) are also useful for detecting and/or identifying Chlamydia in the biological material. (VIII) is also useful as a reagent for purifying (I) from a biological sample which involves carrying out antibody-based affinity chromatography with the biological sample.

Dwg.0/4

FS CPI EPI
FA AB; DCN
MC CPI: B04-C01G; B04-E03F; B04-E04; B04-E05; B04-E06; B04-E08; B04-F01; B04-F10A; B04-G09; B04-N0300E; B04-N03A; B11-C07A; B11-C08E5; B12-K04A4; B12-K04F; **B14-A01A**; B14-S03; **B14-S11B**; D05-C11; D05-H09; D05-H11; D05-H12A; D05-H12C; D05-H12D1; D05-H12D2; D05-H12D5; D05-H12E; D05-H14A1; D05-H17A6; D05-H17C1; D05-H18
EPI: S03-E14H4

L54 ANSWER 12 OF 29 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
AN 2001-168447 [17] WPIX
DNC C2001-050284
TI Novel multivalent immunogenic composition for conferring protection against infection caused by Hameophilus influenzae and Moraxella catarrhalis comprises four antigens derived from each of the two microorganisms.
DC B04 D16
IN **KLEIN, M H; LOOSMORE, S M; SASAKI, K; YANG, Y**
PA (CONN-N) CONNAUGHT LAB LTD; (AVET) **AVENTIS PASTEUR LTD**
CYC 95
PI WO 2001005424 A2 20010125 (200117)* EN 58 A61K039-00 <--
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
AU 2000059586 A 20010205 (200128) A61K039-00 <--
EP 1200122 A2 20020502 (200236) EN A61K039-116 <--
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
US 6391313 B1 20020521 (200239) A61K039-116 <--
AU 767096 B 20031030 (200382) A61K039-00 <--
NZ 516819 A 20031219 (200404) A61K039-00 <--
ADT WO 2001005424 A2 WO 2000-CA811 20000711; AU 2000059586 A AU 2000-59586 20000711; EP 1200122 A2 EP 2000-945494 20000711, WO 2000-CA811 20000711; US 6391313 B1 US 1999-353617 19990715; AU 767096 B AU 2000-59586 20000711; NZ 516819 A NZ 2000-516819 20000711, WO 2000-CA811 20000711
FDT AU 2000059586 A Based on WO 2001005424; EP 1200122 A2 Based on WO 2001005424; AU 767096 B Previous Publ. AU 2000059586, Based on WO 2001005424; NZ 516819 A Based on WO 2001005424
PRAI US 1999-353617 19990715
IC ICM **A61K039-00; A61K039-116**
ICS A61P031-04

AB WO 200105424 A UPAB: 20010328
NOVELTY - A multivalent immunogenic composition (I) for conferring protection in a host against disease caused by both Hameophilus influenzae (HI) and Moraxella catarrhalis (MC) comprising four different antigens, of which at least one antigen is from HI and one antigen is from MC, is new. Additionally three of the antigens of (I) are adhesins, and one is from MC.
ACTIVITY - Auditory; antibacterial.
MECHANISM OF ACTION - Vaccine.
Groups of five BALB/C mice were immunized subcutaneously on days 1,29 and 43 with one of the mouse H91A Hin47 + rHMW + rHia + r200 kDa vaccines. Blood samples were taken on days 0, 14, 28, 42 and 56. Groups of five Hartley outbreed guinea pigs were immunized intramuscularly on days 1, 29 and 43 with the vaccine as described above. Blood samples were taken on days 0, 14, 28, 42 and 56. Anti-H91A Hin47, anti-rHMW, anti-rHia and anti-r200 kDa IgG antibody titers were determined by antigen specific enzyme linked immunosorbant assays (ELISAs). The results of the immunogenicity studies showed that the final bleed sera obtained from mice immunized with 0.3 mu g, or 3.0 mu g each of H91A Hin47 + rHMW + rHia with 0, 0.3, 1.0, 3.0 or 10.0 mu g of added r200 kDa, all had high antibody titers to H91A Hin47 component. The final bleed sera obtained from the mice immunized with 3.0 mu g each of H91A Hin47 + rHMW + rHia with 0, 0.3, 1.0, 3.0 or 10.0 mu g of added r200 kDa, all had high titer antibodies to the rHMW apparent enhancing or inhibiting effect on the anti-rHMW response with the addition of the r200 kDa component. Mice immunized with 0.3 mu g each of H91A Hin 47 + HMW + rHia with 0, 0.3, 1.0, 3.0 or 10.0 mu g of added r200 kDa, all had high titer antibodies to the rHia component. There was no apparent enhancing or inhibiting effect on the anti-rHia response with the addition of the r200 kDa component. The final bleed sera obtained from guinea pigs immunized with 25 mu g or 50 mu g each of H91A Hin47 + rHMW + rHia with 0, 25, 50 or 100 mu g of added r200 kDa, all had high titer antibodies to the H91A Hin47 component. Also final bleed sera obtained from guinea pigs immunized with 25 mu g or 50 mu g each of H91A Hin47 + rHMW + rHia with 0, 25, 50 or 100 mu g of added r200 kDa, all had titer antibodies to the rHMW component. There was no apparent enhancing or inhibiting effect on the anti-rHMW response upon the addition of the r200 kDa antigen.
USE - (I) is useful for immunizing a host against infection caused by both HI and MC including otitis media (claimed).
ADVANTAGE - The multivalent vaccine can confer protection against encapsulated and unencapsulated HI and MC diseased in a safe and efficient manner.
Dwg.0/14
FS CPI
FA AB; DCN
MC CPI: **B04-B04C1**; B14-A01; **B14-A01A**; B14-N02; **B14-S11B**; D05-C02; D05-H07; D05-H12F

L54 ANSWER 13 OF 29 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
AN 2000-687542 [67] WPIX
DNC C2000-209327
TI Nucleic acids encoding a 76 kDa protein from Chlamydia pneumoniae, useful for vaccinating against Chlamydia infections.
DC B04 D16
IN DUNN, P; MURDIN, A D; OOMEN, R P; WANG, J
PA (AVET) **AVENTIS PASTEUR LTD**; (DUNN-I) DUNN P; (MURD-I) MURDIN A D; (OOME-I) OOMEN R P; (WANG-I) WANG J
CYC 93
PI WO 2000066739 A2 20001109 (200067)* EN 90 C12N015-31
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
AU 2000043885 A 20001117 (200111) C12N015-31
EP 1177301 A2 20020206 (200218) EN C12N015-31
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
JP 2002542827 W 20021217 (200312) 110 C12N015-09
US 2003095973 A1 20030522 (200336) A61K039-40 <--
NZ 515674 A 20031219 (200404) C12N015-31
US 2004086525 A1 20040506 (200430) C07H021-04
ADT WO 2000066739 A2 WO 2000-CA511 20000503; AU 2000043885 A AU 2000-43885 20000503; EP 1177301 A2 EP 2000-925004 20000503, WO 2000-CA511 20000503; JP 2002542827 W JP 2000-615762 20000503, WO 2000-CA511 20000503; US

2003095973 A1 Provisional US 1999-132270P 19990503, Provisional US 1999-141276P 19990630, US 2000-564479 20000503; NZ 515674 A NZ 2000-515674 20000503, WO 2000-CA511 20000503; US 2004086525 A1 Provisional US 1999-132270P 19990503, Provisional US 1999-141276P 19990630, Cont of US 2000-564479 20000503, US 2003-608559 20030630

FDT AU 2000043885 A Based on WO 2000066739; EP 1177301 A2 Based on WO 2000066739; JP 2002542827 W Based on WO 2000066739; NZ 515674 A Based on WO 2000066739

PRAI US 1999-141276P 19990630; US 1999-132270P 19990503; US 2000-564479 20000503; US 2003-608559 20030630

IC ICM **A61K039-40**; C07H021-04; C12N015-09; C12N015-31
ICS A61K031-70; **A61K039-00**; **A61K039-02**; **A61K039-118**; **A61K039-38**; **A61K039-39**; **A61K039-395**; A61K048-00; A61P009-10; A61P011-00; A61P011-02; A61P011-06; A61P031-04; C07K014-295; C07K016-12; C07K019-00; C12N001-15; C12N001-19; C12N001-21; C12N005-10; C12N015-11; C12N015-62; C12N015-85; C12P021-02; C12Q001-68; G01N033-53; G01N033-566; G01N033-569

AB WO 200066739 A UPAB: 20001223

NOVELTY - Nucleic acids (NAM1) encoding a 76 kDa protein (PEP1) from Chlamydia pneumoniae, is new. NAM1 and PEP1 have defined nucleotide and amino acid sequences ((I)-(VIII)) given in the specification.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) a nucleic acid molecule (NAM1) comprising a nucleic acid sequence which encodes a polypeptide selected from:

(a) one of 3 defined amino acid sequences ((I)-(III)) given in the specification;

(b) a immunogenic fragment comprising at least 12 consecutive amino acids from (I)-(III); and

(c) the polypeptides of (a) and (b) which have been modified to improve their immunogenicity (the modified polypeptide is at least 75% identical in sequence to the corresponding polypeptides of (a) and (b);

(2) a nucleic acid molecule (I') comprising a sequence antisense to NAM1;

(3) a nucleic acid molecule (NAM2) which encodes a fusion protein that comprises a polypeptide encoded by NAM1 and an additional polypeptide;

(4) a vaccine (VAC1) comprising NAM1 and/or NAM2 and a vaccine vector (each nucleic acid molecule is expressed as a polypeptide and the vaccine may comprise additional nucleic acids encoding other polypeptides which enhance the immune response to the polypeptide expressed from NAM1 and/or NAM2);

(5) a unicellular host (UCH) transformed with NAM1 and NAM2 operatively linked to at least 1 expression control sequence;

(6) a nucleic acid probe of 5-100 nucleotides which hybridizes under stringent conditions to (I) (or homolog, complementary or antisense sequences of (I));

(7) a polypeptide (PEP1) encoded by NAM1 or NAM2;

(8) a fusion polypeptide (PEP2) comprising PEP1 and an additional polypeptide;

(9) a method for producing PEP1 comprising culturing UCH;

(10) an antibody (Ab) against PEP1 and/or PEP2;

(11) a vaccine (VAC2) comprising PEP1 and/or PEP2 (the vaccine may comprise additional polypeptides which enhance the immune response to PEP1 and/or PEP2);

(12) a diagnostic kit comprising NAM1, NAM2, PEP1, PEP2 and/or Ab and instructions for use;

(13) a method for identifying polypeptides (either PEP1 or PEP) which induce an immune response that prevents or reduces the severity of Chlamydia infections in mammals previously immunized with the polypeptide, comprising:

(a) immunizing a mouse with the polypeptide; and

(b) inoculating the immunized mouse with Chlamydia (the polypeptide which prevents or lessens the severity of the Chlamydia infection in the immunized mouse compared to a non-immunized control mouse is identified);

(14) an expression plasmid selected from pCACPNM555a, pCAI555, pCAD76kDa; and

(15) an isolated 76 kDa protein (PEP3) from Chlamydia.

ACTIVITY - Bactericidal.

MECHANISM OF ACTION - Vaccine.

Mice immunized intranasally and intramuscularly with pCACPNM555a had Chlamydial lung titers less than 30000 IFU/lung in 5 of 6 cases at day 9 the range of values for control mice sham immunized with saline were 20800-323300 IFU/lung.

USE - NAM1, NAM2, PEP1, PEP2, VAC1, VAC2 and Ab may be used as

antigens for preventing and treating Chlamydia infection by vaccination. NAM1, NAM2, PEP1, PEP2 and Ab may also be used to detect Chlamydia infection in mammals by using them to assay body fluid (claimed) (e.g. in DNA hybridization assays and immunoassays).
Dwg.0/9
FS CPI
FA AB; DCN
MC CPI: **B04-B04C1**; B04-C01; B04-E03F; B04-E04; B04-E05; B04-E06; B04-E08; B04-F0100E; B04-F10A; B04-G07; B04-N03A0E; B11-A; B11-C07A; B11-C08E; B11-C09; B12-K04A4; B12-K04E; B12-K04F; **B14-A01A**; **B14-S11B**; D05-A01A4; D05-A01B; D05-C12; D05-H04; D05-H07; D05-H08; D05-H09; D05-H11; D05-H12A; D05-H12C; D05-H12D; D05-H12E; D05-H14; D05-H17A5; D05-H17C; D05-H18

L54 ANSWER 14 OF 29 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
AN 2000-431500 [37] WPIX
DNC C2000-131168
TI New immunogenic composition for conferring protection in a host against a disease caused by Haemophilus influenzae, comprises two different antigens of H. influenzae, where one of the antigens is an adhesin.
DC B04 D16
IN **KLEIN, M H**; **LOOSMORE, S M**; **YANG, Y**
PA (CONN-N) CONNAUGHT LAB LTD; (KLEI-I) KLEIN M H; (LOOS-I) LOOSMORE S M; (YANG-I) YANG Y; (AVET) **AVENTIS PASTEUR LTD**
CYC 91
PI WO 2000035477 A2 20000622 (200037)* EN 44 A61K039-102 <--
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
AU 2000015439 A 20000703 (200046)
EP 1140158 A2 20011010 (200167) EN A61K039-102 <--
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
JP 2002532433 W 20021002 (200279) 55 A61K039-102 <--
NZ 512679 A 20030829 (200365) A61K039-102 <--
AU 772882 B2 20040513 (200462) A61K039-102 <--
ADT WO 2000035477 A2 WO 1999-CA1189 19991215; AU 2000015439 A AU 2000-15439 19991215; EP 1140158 A2 EP 1999-957822 19991215, WO 1999-CA1189 19991215; JP 2002532433 W WO 1999-CA1189 19991215, JP 2000-587796 19991215; NZ 512679 A NZ 1999-512679 19991215, WO 1999-CA1189 19991215; AU 772882 B2 AU 2000-15439 19991215
FDT AU 2000015439 A Based on WO 2000035477; EP 1140158 A2 Based on WO 2000035477; JP 2002532433 W Based on WO 2000035477; NZ 512679 A Based on WO 2000035477; AU 772882 B2 Previous Publ. AU 2000015439, Based on WO 2000035477
PRAI US 1998-210995 19981215
IC ICM **A61K039-102**
ICS **A61K039-05**; **A61K039-08**; **A61K039-10**; **A61K039-116**; **A61K039-13**; **A61K039-295**; **A61K039-39**; A61P027-16; A61P031-04; C07K014-285
ICA C12N015-09
AB WO 200035477 A UPAB: 20000807
NOVELTY - A new immunogenic composition (I) for conferring protection in a host against a disease caused by Haemophilus influenzae, comprises at least two different antigens of Haemophilus influenzae, where at least one of the antigens is an adhesin.
DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a method of immunizing a host against disease caused by infection with Haemophilus influenzae, including otitis media, comprising administering to the host an immunoeffective amount of (I).
ACTIVITY - Antibacterial.
MECHANISM OF ACTION - Vaccine.
H91A Hin47 is partially protective in the chinchilla model of otitis media, as described in the US Patent Number 5,506,139.
In this model, 1 to 2 year old chinchillas (Moulton Chinchilla Ranch, Rochester, Minnesota) were immunized intramuscularly (i.m.) on days 0, 14 and 28 with 30 micro g of H91A Hin47 adsorbed to alum, and challenged on day 44 with 50 to 350 colony forming units (cfu) of live organisms delivered into the middle ear space via the epitympanic bulla. Animals were monitored by tympanometry and middle ear fluid was collected 4 days post challenge, mixed with 200 micro l of BHI (undefined) medium and dilutions plated onto chocolate agar plates that were incubated for 24 hours at 37 deg. C. Convalescent animals or those mock-immunized with alum

alone, were used as controls. For the multi-component vaccine study, 50 micro g of H91A Hin47 was mixed with 50 micro g of recombinant HMW (rHMW) and chinchillas were immunized as described above.

The results of the protection study indicate that there was still partial protection afforded in the intrabulla challenge model by the combination of H91A Hin47 and rHMW.

USE - The two different antigens of H. influenzae, at least one of which is an adhesin, are useful in the manufacture of a vaccine for conferring protection against disease caused by infection with H. influenzae, including otitis media. (I) is used as a vaccine (all claimed) against diseases caused by H. influenzae infection.

Dwg.0/12

FS CPI

FA AB; DCN

MC CPI: B04-N0300E; **B14-A01A**; **B14-S11B**; D05-H07

L54 ANSWER 15 OF 29 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN

AN 2000-412339 [35] WPIX

DNN N2000-308180 DNC C2000-125066

TI Nucleic acids encoding polypeptide antigens from Chlamydia useful for preventing, diagnosing and treating diseases such as community acquired pneumonia, bronchitis, sinusitis and asthmatic bronchitis, adult-onset asthma.

DC B04 C06 D16 S03

IN MURDIN, A D; OOMEN, R P; WANG, J; JACOBSON, E L; JACOBSON, M K

PA (CONN-N) CONNAUGHT LAB LTD; (AVET) **AVENTIS PASTEUR LTD**; (JACO-I) JACOBSON E L; (JACO-I) JACOBSON M K

CYC 91

PI WO 2000032794 A2 20000608 (200035)* EN 173 C12N015-62
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
AU 2000015405 A 20000619 (200044)
EP 1135509 A2 20010926 (200157) EN C12N015-62
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
US 2002123517 A1 20020905 (200260) A61K031-44
JP 2002531095 W 20020924 (200278) 175 C12N015-00
NZ 512308 A 20040130 (200414) C12N015-62
MX 2001005617 A1 20030401 (200415) A61K039-118 <--

ADT WO 2000032794 A2 WO 1999-CA1147 19991201; AU 2000015405 A AU 2000-15405 19991201; EP 1135509 A2 EP 1999-957785 19991201, WO 1999-CA1147 19991201; US 2002123517 A1 Provisional US 1998-110428P 19981201, CIP of US 1999-452617 19991201, Div ex US 2000-549691 20000414, US 2002-113681 20020508; JP 2002531095 W WO 1999-CA1147 19991201, JP 2000-585425 19991201; NZ 512308 A NZ 1999-512308 19991201, WO 1999-CA1147 19991201; MX 2001005617 A1 WO 1999-CA1147 19991201, MX 2001-5617 20010601

FDT AU 2000015405 A Based on WO 2000032794; EP 1135509 A2 Based on WO 2000032794; US 2002123517 A1 CIP of US 6337065, Div ex US 6403619; JP 2002531095 W Based on WO 2000032794; NZ 512308 A Based on WO 2000032794; MX 2001005617 A1 Based on WO 2000032794

PRAI US 1998-110438P 19981201; US 1998-110339P 19981201;
US 1998-110340P 19981201; US 1998-110427P 19981201;
US 1998-110428P 19981201; US 1999-452617 19991201;
US 2000-549691 20000414; US 2002-113681 20020508

IC ICM A61K031-44; **A61K039-118**; C12N015-00; C12N015-62
ICS A61K031-7088; **A61K039-385**; **A61K039-39**; **A61K039-395**; A61K048-00; A61P031-00; C07K007-08; C07K014-295; C07K014-705; C07K016-12; C07K019-00; C12N001-15; C12N001-19; C12N001-21; C12N005-10; C12P021-02; C12Q001-68; G01N033-15; G01N033-50; G01N033-53; G01N033-569

AB WO 200032794 A UPAB: 20000725
NOVELTY - Nucleic acids (NAM1) encoding polypeptide (PEP1) antigens from Chlamydia, are new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) a nucleic acid molecule (NAM1) comprising a sequence selected from:

(a) nucleic acid sequences (N1)-(N10), which are defined sequences given in the specification;

(b) a sequence encoding a polypeptide encoded by (N1)-(N10);

(c) a sequence comprising at least 38 consecutive nucleotides from (N1)-(N10); and/or

(d) a sequence which encodes a polypeptide at least 75% identical in amino acid sequence to the polypeptides encoded by (N1)-(N10);

(2) a nucleic acid molecule (NAM1') that comprises an antisense sequence to NAM1;

(3) a nucleic acid molecule (NAM2) comprising a sequence encoding a fusion protein comprising the polypeptide encoded by NAM1 and an additional polypeptide;

(4) a vaccine composition (VAC1) comprising a vaccine vector and NAM1 and/or NAM2 expressed as a polypeptide (the vaccine may comprise an additional polypeptide that enhances the immune response to the polypeptide expressed by NAM1);

(5) a unicellular host (CELL1) transformed with either NAM1 and/or NAM2;

(6) a nucleic acid probe of 5-100 nucleotides which hybridizes under stringent conditions to (N1)-(N10) (or homologs, complementary and/or antisense sequences of them);

(7) a primer of 10-40 nucleotides which hybridizes under stringent conditions to (N1)-(N10) (or homologs, complementary and/or antisense sequences of them);

(8) a polypeptide (PEP1) encoded by NAM1 and/or NAM2;

(9) a fusion peptide (PEP2) comprising PEP1 and an additional polypeptide;

(10) a method (METH1) for producing PEP1 and/or PEP2 comprising culturing CELL1;

(11) an antibody (ANB1) against PEP1 and/or PEP2;

(12) a method (METH2) for preventing and/or treating Chlamydia infections using NAM1 and/or NAM2, VAC1, PEP1 and/or PEP2 or ANB1;

(13) a method (METH3) for detecting Chlamydia infection comprising assaying a body fluid of a mammal to be tested with either NAM1 and/or NAM2, PEP1 or ANB1;

(14) a diagnostic kit comprising instructions for use and either NAM1 and/or NAM2, PEP1 or ANB1; and

(15) a method (METH4) for identifying a PEP1 and/or PEP2 which induces an immune response that prevents or lessens the severity of a Chlamydia infection in a mammal previously immunized with the polypeptide, comprising:

(a) immunizing a mouse with the polypeptide; and

(b) inoculating the immunized mouse with Chlamydia (the polypeptide which lessens or prevents the severity of the Chlamydia infection in the immunized mouse compared to a non-immunized control mouse is identified).

ACTIVITY - Bactericide.

No data given.

MECHANISM OF ACTION - Vaccine.

USE - The nucleic acids (and complementary sequences) may be used as diagnositc agents for detecting the presence of nucleic acids encoding Chlamydia antigens in samples according to standard methods, and therefore, for diagnosing Chlamydia infections. For example, they may be used as primers and probes for diagnostic polymerase chain reaction (PCR) assays. Antisense sequences may be used to down regulate expression of the proteins and may be used to treat infections. The nucleic acids may also be used to produce the protein antigens they encode according to standard recombinant DNA methodologies. The proteins may then be used as antigens for the production of antibodies (i.e. as vaccines) for preventing infection by Chlamydia. The antibodies may also be used as diagnostic reagents for detecting infections. Chlamydia is a pathogen implicated in the development of (for example) community acquired pneumonia, upper respiratory tract disease (especially bronchitis and sinusitis, asthmatic bronchitis, adult-onset asthma and acute exacerbations of asthma in adults.

Dwg.0/0

FS CPI EPI

FA AB; DCN

MC CPI: **B04-B04C1**; B04-C01; B04-E03F; B04-E04; B04-E05; B04-E06; B04-E08; B04-F0100E; B04-F10A; B04-G07; B04-N03A0E; B04-P01B; B11-A; B11-C07A4; B11-C08E; B11-C09; B12-K04A4; B12-K04F; B12-M05; **B14-A01A**; **B14-S11B**; B14-S12; **C04-B04C1**; C04-C01; C04-E03F; C04-E04; C04-E05; C04-E06; C04-E08; C04-F0100E; C04-F10A; C04-G07; C04-N03A0E; C04-P01B; C11-A; C11-C07A4; C11-C08E; C11-C09; C12-K04A4; C12-K04F; C12-M05; **C14-A01A**; **C14-S11B**; C14-S12; D05-A01A4; D05-A01B; D05-C12; D05-H04; D05-H07; D05-H08; D05-H09; D05-H11; D05-H12A; D05-H12C; D05-H12D; D05-H12E; D05-H14; D05-H17A5; D05-H17C; D05-H18

EPI: S03-E14H4

L54 ANSWER 16 OF 29 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN

AN 2000-412330 [35] WPIX

DNN N2000-308175 DNC C2000-125057
TI New polynucleotide encoding the Chlamydia 98 kiloDalton outer membrane protein, useful for preventing or treating Chlamydia infection.
DC B04 D16 S03
IN DUNN, P; MURDIN, A D; OOMEN, R P; WANG, J
PA (CONN-N) CONNAUGHT LAB LTD; (AVET) **AVENTIS PASTEUR LTD**; (DUNN-I) DUNN P; (MURD-I) MURDIN A D; (OOME-I) OOMEN R P; (WANG-I) WANG J
CYC 91
PI WO 2000032784 A1 20000608 (200035)* EN 94 C12N015-31
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
AU 2000037909 A 20000619 (200044)
EP 1135501 A1 20010926 (200157) EN C12N015-31
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
US 2002094340 A1 20020718 (200254) A61K039-118 <--
JP 2002531093 W 20020924 (200278) 93 C12N015-09
US 2003157124 A1 20030821 (200356) A61K039-02 <--
MX 2001005616 A1 20030401 (200415) A61K039-118 <--
NZ 529361 A 20040625 (200445) C12N015-63
ADT WO 2000032784 A1 WO 1999-CA1148 19991201; AU 2000037909 A AU 2000-37909 19991201; EP 1135501 A1 EP 1999-957786 19991201, WO 1999-CA1148 19991201; US 2002094340 A1 Provisional US 1998-113439P 19981223, Provisional US 1999-132272P 19990503, US 1999-452380 19991201; JP 2002531093 W WO 1999-CA1148 19991201, JP 2000-585415 19991201; US 2003157124 A1 Provisional US 1998-110439P 19981201, Provisional US 1999-132272P 19990503, Cont of US 1999-452380 19991201, US 2002-324129 20021220; MX 2001005616 A1 WO 1999-CA1148 19991201, MX 2001-5616 20010601; NZ 529361 A Div ex NZ 2000-512354 20000114, NZ 2000-529361 20000114
FDT AU 2000037909 A Based on WO 2000032784; EP 1135501 A1 Based on WO 2000032784; JP 2002531093 W Based on WO 2000032784; MX 2001005616 A1 Based on WO 2000032784; NZ 529361 A Div ex NZ 512354
PRAI US 1999-132272P 19990503; US 1998-110439P 19981201;
US 1998-113439P 19981223; US 1999-452380 19991201;
US 2002-324129 20021220
IC ICM **A61K039-02**; **A61K039-118**; C12N015-09; C12N015-31; C12N015-63
ICS A61K031-711; A61K038-00; **A61K039-39**; **A61K039-395**; A61K048-00; A61P031-04; C07H021-04; C07K014-295; C07K014-705; C07K016-12; C07K019-00; C12N001-15; C12N001-19; C12N001-21; C12N005-10; C12N015-11; C12N015-62; C12N015-74; C12P021-02; C12Q001-68; G01N033-15; G01N033-50; G01N033-53; G01N033-569
AB WO 200032784 A UPAB: 20000725
NOVELTY - Isolated polynucleotide (N1) encoding the Chlamydia 98 kiloDalton (kDa) outer membrane protein, known as CPN100640, is new.

DETAILED DESCRIPTION - Isolated polynucleotide (N1) encoding the Chlamydia 98 kiloDalton (kDa) outer membrane protein, is new.

N1 comprises a nucleic acid sequence selected from:

(a) the 3050 (I) or 2808 (II) nucleotide sequence defined in the specification;

(b) a sequence which encodes a polypeptide encoded by (I) or (II);

(c) a sequence comprising at least 38 consecutive nucleotides from any one of the nucleic acid sequences of (a) and (b); and

(d) a sequence which encodes a polypeptide which is at least 75% identical in amino acid sequence to the polypeptides encoded by (I) or (II).

INDEPENDENT CLAIMS are also included for the following:

(1) a nucleic acid molecule (N2) comprising a nucleic acid sequence which encodes a polypeptide selected from:

(a) the 936 (III) or 925 (IV) amino acid sequence defined in the specification;

(b) an immunogenic fragment comprising at least 12 consecutive amino acids from a polypeptide of (a); and

(c) a polypeptide of (a) or (b) which has been modified to improve its immunogenicity, where the modified polypeptide is at least 75% identical in amino acid sequence to the corresponding polypeptide of (a) or (b);

(2) a nucleic acid molecule (N3) comprising a nucleic acid sequence which is anti-sense to the nucleic acid molecule of (1) or N1;

(3) a nucleic acid molecule (N4) comprising a nucleic acid sequence which encodes a fusion protein comprising a polypeptide encoded by N1 and an additional polypeptide;

(4) a vaccine comprising at least one first nucleic acid of N1, N2 or N4 and a vaccine vector, where each first nucleic acid is expressed as a polypeptide, the vaccine optionally comprising a second nucleic acid encoding an additional polypeptide which enhances the immune response to the polypeptide expressed by the first nucleic acid;

(5) a unicellular host transformed with a nucleic acid (N1, N2, N3 or N4) operatively linked to one or more expression control sequences;

(6) a nucleic acid probe of 5 to 100 nucleotides which hybridizes under stringent conditions to N1 or N2, or to a homolog or complementary or anti-sense sequence of the nucleic acid molecule;

(7) a primer of 10 to 40 nucleotides which hybridizes under stringent conditions to N1 or N2, or to a homolog or complementary or anti-sense sequence of the nucleic acid molecule;

(8) a polypeptide (P1) encoded by N1, N2 or N4;

(9) a polypeptide (P2) comprising an amino acid sequence selected from:

(a) (III) or (IV);

(b) an immunogenic fragment comprising at least 12 consecutive amino acids from a polypeptide of (a); and

(c) a polypeptide of (a) or (b) which has been modified to improve its immunogenicity, where the modified polypeptide is at least 75% identical in amino acid sequence to the corresponding polypeptide of (a) or (b);

(10) a fusion polypeptide (P3) comprising P1 or P2, and an additional polypeptide;

(11) a method for producing P1 or P2, comprising culturing the unicellular host of (5);

(12) an antibody against P1, P2 or P3;

(13) a vaccine comprising at least one first polypeptide of P1, P2 or P3, and optionally comprising a second polypeptide which enhances the immune response to the first polypeptide;

(14) a method of detecting Chlamydia infection comprising the step of assaying a body fluid of a mammal to be tested, with a component selected from:

(a) N1, N2, N3 or N4;

(b) P1, P2 or P3; or

(c) the antibody of (12);

(15) a diagnostic kit comprising a component selected from those defined in the method of (14);

(16) a method for identifying a polypeptide of P1, P2 or P3 which induces an immune response effective to prevent or lessen the severity of Chlamydia infection in a mammal previously immunized with polypeptide, comprising:

(a) immunizing a mouse with the polypeptide; and

(b) inoculating the immunized mouse with Chlamydia, where the immunized mouse is compared with a non-immunized mouse control to identify the polypeptide; and

(17) expression plasmid pCAI640.

ACTIVITY - Antibacterial.

Groups of 7 to 9 week old male Balb/c mice (8 to 10 per group) were immunized intramuscularly (i.m.) plus intranasally (i.n.) with plasmid DNA containing the coding sequence of C. pneumoniae 98 kDa outer membrane protein gene. Saline or the plasmid vector lacking an inserted chlamydial gene was given to groups of control animals.

For i.m. immunization alternate left and right quadriceps were injected with 100 micro g of DNA in 50 micro l of phosphate buffered saline (PBS) on three occasions at 0, 3 and 6 weeks. For i.n. immunization, anaesthetized mice aspirated 50 micro l of PBS containing 50 micro g DNA on three occasions at 0, 3 and 6 weeks. At week 8, immunized mice were inoculated i. n. with 5 x 105 IFU (undefined) of C. pneumoniae, strain AR39 in 100 micro l of SPG (7.5 % sucrose, 5 mM glutamate, 12.5 mM phosphate pH 7.5) buffer to test their ability to limit the growth of a sublethal C. pneumoniae challenge.

Lungs were taken from mice at days 5 and 9 post-challenge and immediately homogenized in SPG buffer. Dilutions of the homogenate were assayed for the presence of infectious Chlamydia by inoculation onto monolayers of susceptible cells. The inoculum was centrifuged onto the cells at 3000 rotations per minute (rpm) for 1 hour, then the cells were incubated for three days at 35 deg. C in the presence of 1 micro g/ml cycloheximide. After incubation the monolayers were fixed with formalin and methanol then immunoperoxidase stained for the presence of chlamydial inclusions using convalescent sera from rabbits infected with C. pneumoniae and metal-enhanced DAB (undefined) as a peroxidase substrate.

Mice immunized i.n. and i.m. with pCAI640 had chlamydial lung titers less than 255,000 in 4 of 4 cases at day 5 and less than 423,200 in 4 of 4 cases at day 9 while the range of values for control mice immunized with

saline was 227,000-934,200 IFU/lung (mean 685,240) at day 5 and 96,000-494,000 IFU/lung (mean 238,080) at day 9.

MECHANISM OF ACTION - Vaccine.

USE - The nucleic acids, proteins, antibodies and vaccines are useful for preventing or treating Chlamydia infection (claimed).

Dwg.0/4

FS CPI EPI

FA AB; DCN

MC CPI: B04-C01G; B04-E02F; B04-E03F; B04-E05; B04-E06; B04-E08; B04-F0100E; B04-F1100E; **B04-G01**; B04-G07; B04-N03A0E; B11-C08E; B12-K04A4; B12-K04F; **B14-A01A**; **B14-S11B**; D05-H07; D05-H09; D05-H11; D05-H12A; D05-H12B2; D05-H12D1; D05-H12D2; D05-H12E; D05-H14A; D05-H17A6; D05-H17B6

EPI: S03-E14H4

L54 ANSWER 17 OF 29 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN

AN 2000-352521 [31] WPIX

DNC C2000-107478

TI Novel multivalent vaccine composition for use solely as a booster against in pre-sensitized subjects, to protect against e.g., diphtheria, poliomyelitis and tetanus.

DC B04 D16

IN CARTIER, J R; LAROCHE, P

PA (INMR) PASTEUR MERIEUX MSD; (AVET) **AVENTIS PASTEUR**; (AVET) **AVENTIS PASTEUR MSD**

CYC 88

PI EP 1004314 A1 20000531 (200031)* FR 11 A61K039-295 <--
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
WO 2000030678 A1 20000602 (200033) FR
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW
AU 2000013901 A 20000613 (200043)
EP 1131094 A1 20010912 (200155) FR A61K039-295 <--
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
CZ 2001001860 A3 20020116 (200215) A61K039-295 <--
ZA 2001003634 A 20020731 (200271) 44 A61K000-00
NZ 511933 A 20020927 (200272) A61K039-295 <--
AU 759221 B 20030410 (200337) A61K039-295 <--
JP 2003525858 W 20030902 (200358) 31 A61K039-05 <--
EP 1131094 B1 20041103 (200475) FR A61K039-295 <--
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

ADT EP 1004314 A1 EP 1998-122373 19981126; WO 2000030678 A1 WO 1999-FR2913 19991125; AU 2000013901 A AU 2000-13901 19991125; EP 1131094 A1 EP 1999-972544 19991125, WO 1999-FR2913 19991125; CZ 2001001860 A3 WO 1999-FR2913 19991125, CZ 2001-1860 19991125; ZA 2001003634 A ZA 2001-3634 20010504; NZ 511933 A NZ 1999-511933 19991125, WO 1999-FR2913 19991125; AU 759221 B AU 2000-13901 19991125; JP 2003525858 W WO 1999-FR2913 19991125, JP 2000-583561 19991125; EP 1131094 B1 EP 1999-972544 19991125, WO 1999-FR2913 19991125

FDT AU 2000013901 A Based on WO 2000030678; EP 1131094 A1 Based on WO 2000030678; CZ 2001001860 A3 Based on WO 2000030678; NZ 511933 A Based on WO 2000030678; AU 759221 B Previous Publ. AU 2000013901, Based on WO 2000030678; JP 2003525858 W Based on WO 2000030678; EP 1131094 B1 Based on WO 2000030678

PRAI EP 1998-122373 19981126

IC ICM A61K000-00; **A61K039-05**; **A61K039-295**
ICS **A61K039-08**; **A61K039-10**; **A61K039-13**; **A61K039-29**; A61P025-00; A61P031-04

AB EP 1004314 A UPAB: 20040511

NOVELTY - Vaccine formulated for exclusive use as a repeat ('booster') vaccine in a population already having received a primary vaccine and/or sensitized against at least the poliovirus, Corynebacterium diphteriae and/or C. tetani, is new.

DETAILED DESCRIPTION - Vaccine (I) formulated for exclusive use as a repeat ('booster') vaccine in a population already having received a primary vaccine and/or sensitized against at least the poliovirus, Corynebacterium diphteriae and/or C. tetani, comprises,

(1) at least 1.2 mg/ml of aluminum salt;

(2) antigens derived from at least the poliovirus; and

(3) a quantity of diphtheria anatoxin (DA) used as an antigen of C.

diphteriae comprising between 4-16 Flocculation units (Fu);
ACTIVITY - Immunostimulant; anti-viral.
MECHANISM OF ACTION - Vaccine. Three lots of 0.5 ml per vaccine were used in a study of 31 adults, the lots differed only in the quantity of diphtheria anatoxin, 2 (lot A), 5 (B) and 8 (C) Fu/ml, the adults were divided into 3 groups of 10, one for each lot. Each subject was injected into their deltoid muscle. No systemic reactions were reported for any of the lots, although localized reactions were noted over the first week in 8 subjects in lot A, 6 subjects in lot B and 8 subjects in lot C. Symptoms included redness and swellings around the site of injection, although all symptoms disappeared without treatment and did not affect the quality of life of the subjects. No reactions were observed beyond the first week and no serious reactions were observed in any subjects. In addition the immune responses to the 5 antigens were excellent for all three lots, despite initially elevated titers due to the young age of the subjects and because of recent vaccinations, a booster effect was obtained for each antigen.
ADVANTAGE - The vaccine (I) is specifically designed for use as a booster vaccine only, and as such avoids the reduced immunogenicity that occurs when administering reduced dosages of normal primary vaccines. The quantity of immunogenic diphtheria anatoxin used (10 Fu/ml) and allows optimal immunogenic protection while minimizing undesirable side-effects, such as allergic reactions to the antigens.
Dwg.0/0

FS CPI
FA AB; DCN
MC CPI: B04-B04M; B04-F11; **B14-A01A**; B14-A01A1; B14-A01B;
B14-A02A4; B14-A02A5; **B14-S11A**; **B14-S11B**;
D05-H07; D05-H08; D05-H14

L54 ANSWER 18 OF 29 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
AN 2000-350742 [30] WPIX
DNN N2000-262745 DNC C2000-106768
TI Isolated polynucleotide encoding a Chlamydia polypeptide useful to treat, diagnose and prevent disease caused by Chlamydia infection.
DC B04 D16 S03
IN DUNN, P L; MURDIN, A D; OOMEN, R P
PA (CONN-N) CONNAUGHT LAB LTD; (AVET) **AVENTIS PASTEUR LTD**; (DUNN-I) DUNN P L; (MURD-I) MURDIN A D; (OOME-I) OOMEN R P
CYC 91
PI WO 2000024901 A1 20000504 (200030)* EN 88 C12N015-31
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
AU 9963593 A 20000515 (200039)
EP 1124964 A1 20010822 (200149) EN C12N015-31
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
US 6403101 B1 20020611 (200244) A61K039-118 <--
US 2002091096 A1 20020711 (200248) A61K048-00
JP 2002528081 W 20020903 (200273) 104 C12N015-09
MX 2001004356 A1 20030701 (200366) A61K039-02 <--
US 6642025 B2 20031104 (200374) C12P021-06
NZ 511886 A 20031219 (200404) C12N015-31
AU 770905 B2 20040304 (200453) C12N015-31
ADT WO 2000024901 A1 WO 1999-GB3565 19991028; AU 9963593 A AU 1999-63593 19991028; EP 1124964 A1 EP 1999-951017 19991028, WO 1999-GB3565 19991028; US 6403101 B1 Provisional US 1998-106037P 19981028, Provisional US 1999-154658P 19990920, US 1999-427501 19991026; US 2002091096 A1 Provisional US 1998-106037P 19981028, Provisional US 1999-154658P 19990920, Div ex US 1999-427501 19991026, US 2001-905119 20010713; JP 2002528081 W WO 1999-GB3565 19991028, JP 2000-578453 19991028; MX 2001004356 A1 WO 1999-GB3565 19991028, MX 2001-4356 20010430; US 6642025 B2 Provisional US 1998-106037P 19981028, Provisional US 1999-154658P 19990920, Div ex US 1999-427501 19991026, US 2001-905119 20010713; NZ 511886 A NZ 1999-511886 19991028, WO 1999-GB3565 19991028; AU 770905 B2 AU 1999-63593 19991028
FDT AU 9963593 A Based on WO 2000024901; EP 1124964 A1 Based on WO 2000024901; JP 2002528081 W Based on WO 2000024901; MX 2001004356 A1 Based on WO 2000024901; US 6642025 B2 Div ex US 6403101; NZ 511886 A Based on WO 2000024901; AU 770905 B2 Previous Publ. AU 9963593, Based on WO 2000024901
PRAI US 1999-427501 19991026; US 1998-106037P 19981028;
US 1999-154658P 19990920; US 2001-905119 20010713
IC ICM **A61K039-02**; **A61K039-118**; A61K048-00; C12N015-09;

C12N015-31; C12P021-06
ICS A61K038-00; A61K039-00; A61K039-39; A61P009-10; A61P011-00; A61P011-06; C07H021-04; C07K001-22; C07K014-295; C07K016-12; C12N001-15; C12N001-19; C12N001-21; C12N005-10; C12N015-62; C12P021-02; C12Q001-68; G01N033-53; G01N033-543; G01N033-566; G01N033-569
ICI C12N001-21; C12N015-09; C12P021-02; C12R001:01; C12R001:01; C12R001:01
AB WO 200024901 A UPAB: 20000624
NOVELTY - An isolated polynucleotide (N1) encoding a lorf2 protein of a strain of Chlamydia pneumoniae, is new.

DETAILED DESCRIPTION - An isolated polynucleotide (N1) has a nucleotide sequence which comprises:

(a) a defined nucleotide sequence (I) of 1550 base pairs or functional fragments of (I);

(b) a nucleotide sequence encoding a polypeptide with a sequence at least 75% homologous to (II) which has a defined protein sequence of 422 amino acids, or functional fragments; or

(c) a sequence capable of hybridizing under stringent conditions to a sequence comprising (I), or functional fragments.

INDEPENDENT CLAIMS are also included for the following:

(1) an isolated polypeptide (P1) with a sequence at least 75% homologous to (II), or functional fragments of (II);

(2) a polypeptide P2 comprising P1 linked to a fusion polypeptide;

(3) an expression cassette comprising N1 operably linked to a promoter;

(4) an expression vector comprising the expression cassette of (3);

(5) a host cell comprising the expression cassette of (3);

(6) a method of producing a recombinant polypeptide with sequence (II) comprising culturing the host cell of (5) and recovering the polypeptide;

(7) a vaccine vector comprising the expression cassette of (3);

(8) a pharmaceutical composition containing P1 and one or more known Chlamydia antigens;

(9) a method for inducing an immune response in a mammal comprising administering the vaccine vector of (7) or a composition containing P1 to induce an immune response;

(10) a polynucleotide probe reagent capable of detecting the presence of Chlamydia in biological material comprising a polynucleotide that hybridizes to N1 under stringent conditions;

(11) a hybridization method for detecting the presence of Chlamydia in a sample comprising:

(a) obtaining polynucleotide from the sample;

(b) hybridizing the obtained polynucleotide with the polynucleotide probe reagent of (10) under conditions allowing hybridization of the probe and the sample; and

(c) detecting any hybridization occurring;

(12) an amplification method for detecting the presence of Chlamydia in a sample comprising:

(a) obtaining polynucleotide from the sample;

(b) amplifying the polynucleotide using one or more polynucleotide probe reagents of (10); and

(c) detecting the amplified polynucleotide;

(13) a method for detecting the presence of Chlamydia in a sample comprising contacting the sample with a detecting reagent that binds to P1 in the sample and detecting the formed complex;

(14) an affinity chromatography method for substantially purifying a polypeptide with sequence (II) comprises:

(a) contacting a sample containing (II) with a detecting reagent that binds to the polypeptide to form a complex;

(b) isolating the formed complex;

(c) dissociating the formed complex; and

(d) isolating the dissociated polypeptide; and

(15) an antibody that immunospecifically binds P1 or a fragment or derivative of the antibody containing its binding domain.

ACTIVITY - Antibacterial.

MECHANISM OF ACTION - Vaccine.

Balb/c mice (7-9 weeks old) were immunized intramuscularly and intranasally with plasmid DNA containing the coding sequence of C. pneumoniae lorf2 gene. Control animals were given saline or the plasmid vector without the chlamydial gene. The intramuscular immunization comprised 100 micro g DNA in 50 micro l phosphate buffered saline (PBS) at 0, 3 and 6 weeks and the intranasal immunization comprised 50 micro g DNA in 50 micro l PBS at 0, 3 and 6 weeks. At week 8, immunized mice were inoculated intranasally with 5x105 inclusion forming units (IFU) of C. pneumoniae, strain AR39 in 100 micro l SPG (sucrose, glutamate, phosphate) buffer. Lungs were taken from the mice at day 9 post challenge and

homogenized in SPG buffer, the homogenate was assayed for the presence of infectious chlamydia by inoculation onto monolayers of susceptible cells After incubation the monolayers were fixed and immunoperoxidase stained for the presence of chlamydial inclusions using convalescent sera from rabbits infected with C. pneumoniae and metal-enhanced DAB (not defined) as a peroxidase substrate. Mice immunized with the plasmid containing the lorf2 gene had an average chlamydial lung titer of 11050 IFU/lung compared to 111783 IFU/lung for the control mice immunized with saline.

USE - The polynucleotides and polypeptides can be used as a vaccine for humans to treat or prevent disease caused by Chlamydia infection and P1, N1 or an antibody to P1 can be used to diagnose a Chlamydia infection.

Dwg.0/4

FS CPI EPI

FA AB; DCN

MC CPI: B04-B04D5; B04-C01G; B04-E03F; B04-E05; B04-E08; B04-F0100E; B04-F10A; **B04-G01**; B04-G21; B04-G22; B04-N03A; B11-C07A; B11-C08E3; B11-C08E5; B12-K04A4; B12-K04F; **B14-A01A**; **B14-S11B**; D05-H04; D05-H07; D05-H09; D05-H11A; D05-H11B; D05-H12A; D05-H12D1; D05-H12E; D05-H14; D05-H17A6; D05-H18B

EPI: S03-E14H4

L54 ANSWER 19 OF 29 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN

AN 2000-350688 [30] WPIX

DNC C2000-106714

TI Chlamydia antigenes and the proteins they encode, useful for vaccinating against Chlamydia infections that affect the respiratory tract.

DC B04 D16

IN MURDIN, A D; OOMEN, R P; WANG, J; DUNN, P

PA (CONN-N) CONNAUGHT LAB LTD; (AVET) **AVENTIS PASTEUR LTD**

CYC 91

PI WO 2000024765 A2 20000504 (200030)* EN 165 C07K014-00
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
AU 2000012541 A 20000515 (200039)
EP 1129202 A2 20010905 (200151) EN C12N015-62
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
JP 2002530052 W 20020917 (200276) 222 C12N015-09
MX 2001004291 A1 20030601 (200417) C07K014-00

ADT WO 2000024765 A2 WO 1999-CA992 19991028; AU 2000012541 A AU 2000-12541 19991028; EP 1129202 A2 EP 1999-955602 19991028, WO 1999-CA992 19991028; JP 2002530052 W WO 1999-CA992 19991028, JP 2000-578335 19991028; MX 2001004291 A1 WO 1999-CA992 19991028, MX 2001-4291 20010427

FDT AU 2000012541 A Based on WO 2000024765; EP 1129202 A2 Based on WO 2000024765; JP 2002530052 W Based on WO 2000024765; MX 2001004291 A1 Based on WO 2000024765

PRAI US 1998-107035P 19981102; US 1998-106034P 19981028;
US 1998-106039P 19981028; US 1998-106042P 19981028;
US 1998-106044P 19981028; US 1998-106072P 19981029;
US 1998-106073P 19981029; US 1998-106074P 19981029;
US 1998-106087P 19981029; US 1998-106587P 19981102;
US 1998-106588P 19981102; US 1998-106589P 19981102;
US 1998-107034P 19981102

IC ICM C07K014-00; C12N015-09; C12N015-62
ICS A61K038-00; **A61K039-118**; **A61K039-395**; A61K048-00; A61P031-04; C07K014-295; C07K016-12; C12N001-15; C12N001-19; C12N001-21; C12N005-10; C12Q001-68; G01N033-15; G01N033-50; G01N033-53; G01N033-569

AB WO 200024765 A UPAB: 20000624

NOVELTY - Nucleic acids (A) encoding Chlamydia antigenes and the proteins (B) they express, are new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) a nucleic acid molecule (A) comprising a sequence encoding a polypeptide (B) selected from:

(a) one of 19 defined amino acid sequences ((IIa) - (IIs)) given in the specification;

(b) an immunogenic fragment comprising at least 12 consecutive amino acids from (IIa) - (IIs); and/or

(c) a modified form of the polypeptide sequences (IIa) - (IIs) which has been modified to improve its immunogenicity (the modified peptide is at least 75% identical to the corresponding amino acid sequence of (IIa) -

(IIb));
(2) a polypeptide (B) encoded by (A);
(3) a nucleic acid encoding a fusion protein comprising a polypeptide encoded by (A) and an additional polypeptide;
(4) a fusion protein comprising (B) and an additional polypeptide;
(5) a vaccine (C) comprising (A) and a vaccine vector which express (B) (and optionally comprising a second nucleic acid (D) encoding an additional polypeptide (J) which enhances the immune response to (A) and/or (B);
(6) a nucleic acid probe (E) (of 5 to 100 nucleotides) or primer (F) (of 10 to 40 nucleotides) which hybridizes under stringent conditions to (Ia) - (Iz) (or a homolog, complementary or antisense sequence of (Ia) - (Iz));
(7) a unicellular host (G) transformed with (A);
(8) a method for producing (B) comprising culturing (G);
(9) a vaccine (H) comprising (B) (and optionally comprising an additional polypeptide (J));
(10) an antibody (K) against (B);
(11) a method for preventing or treating Chlamydia infection, using:
(a) (A);
(b) (C) and/or (H);
(c) (B); and/or
(d) (K);
(12) a method for detecting Chlamydia infection comprising assaying a body fluid of a mammal with either:
(a) (A);
(b) (B); and/or
(c) (K); and
(13) a diagnostic kit comprising instructions for use and a component selected from:
(a) (A);
(b) (B); and/or
(c) (K).
ACTIVITY - Antiinflammatory; respiratory; antibacterial; anti-asthmatic; antiarteriosclerotic.
No biological data given.
MECHANISM OF ACTION - Vaccine.
USE - The nucleic acids may be used for the recombinant production of the Chlamydia polypeptides (either in vivo or in vitro) according to standard recombinant DNA methodologies. The polypeptides may then be used to vaccinate against Chlamydia infections in mammals. Chlamydia, such as C. pneumoniae, are pathogens responsible for upper respiratory tract infections such as community acquired pneumonia, acute respiratory disease and bronchitis and may be implicated in atherosclerotic changes and asthma.
The nucleic acids may also be used as probes for detecting the presence of Chlamydia nucleic acids in samples (and therefore diagnose infections) and the proteins may be used as antigens for the production of antibodies that may be used to detect Chlamydia proteins in samples (e.g. via enzyme linked immunosorbant assay (ELISA)).
Dwg.0/0

FS CPI
FA AB; DCN
MC CPI: B04-B03C; **B04-B04C**; **B04-B04C1**; **B04-B04C7** ; B04-B04M; B04-C01G; B04-E03F; B04-E04; B04-E05; B04-E06; B04-E08; B04-F01; B04-G07; B04-N03A0E; B11-A; B11-C07A4; B11-C08E1; B11-C08E3; B11-C08E5; B12-K04A4; B12-K04F; **B14-A01A**; B14-C03; B14-K01A; B14-S03; **B14-S11B**; D05-A01A4; D05-A01B; D05-C12; D05-H04; D05-H07; D05-H08; D05-H09; D05-H11; D05-H12A; D05-H12D1; D05-H12D2; D05-H12D5; D05-H12E; D05-H14; D05-H17A5; D05-H18B

L54 ANSWER 20 OF 29 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
AN 2000-303789 [26] WPIX
DNC C2000-092308
TI Nucleic acid molecule for producing recombinant high molecular weight proteins of Haemophilus which are used as a vaccine to provide protection against Haemophilus induced diseases in humans.
DC B04 D16
IN **KLEIN, M H**; **LOOSMORE, S M**; **YANG, Y**
PA (CONN-N) CONNAUGHT LAB LTD; (AVET) **AVENTIS PASTEUR LTD**; (KLEI-I) KLEIN M H; (LOOS-I) LOOSMORE S M; (YANG-I) YANG Y
CYC 90
PI WO 2000020609 A2 20000413 (200026)* EN 307 C12N015-70
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES

FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS
LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ
TM TR TT UA UG US UZ VN YU ZA ZW

AU 9960736 A 20000426 (200036)
EP 1117807 A2 20010725 (200143) EN C12N015-70
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
RO SE SI
US 6432669 B1 20020813 (200255) C12P021-06
JP 2002532062 W 20021002 (200279) 307 C12N015-09
US 2003133943 A1 20030717 (200348) A61K039-02 <--
AU 765339 B 20030918 (200370) C12N015-70
NZ 511360 A 20040130 (200414) C12N015-70
JP 2004166710 A 20040617 (200440) 90 C12N015-09

ADT WO 2000020609 A2 WO 1999-CA938 19991007; AU 9960736 A AU 1999-60736 19991007; EP 1117807 A2 EP 1999-947153 19991007, WO 1999-CA938 19991007; US 6432669 B1 CIP of US 1998-167568 19981007, US 1998-206942 19981208; JP 2002532062 W WO 1999-CA938 19991007, JP 2000-574704 19991007; US 2003133943 A1 Cont of US 1998-167568 19981007, US 2002-193764 20021211; AU 765339 B AU 1999-60736 19991007; NZ 511360 A NZ 1999-511360 19991007, WO 1999-CA938 19991007; JP 2004166710 A Div ex JP 2000-574704 19991007, JP 2004-37346 20040213

FDT AU 9960736 A Based on WO 2000020609; EP 1117807 A2 Based on WO 2000020609; JP 2002532062 W Based on WO 2000020609; AU 765339 B Previous Publ. AU 9960736, Based on WO 2000020609; NZ 511360 A Based on WO 2000020609

PRAI US 1998-206942 19981208; US 1998-167568 19981007;
US 2002-193764 20021211

IC ICM **A61K039-02**; C12N015-09; C12N015-70; C12P021-06
ICS A61K009-127; A61K009-14; A61K009-48; A61K031-70; A61K038-16; **A61K039-102**; A61P031-04; C07H021-04; C07K014-195; C07K014-285; C12N001-12; C12N001-21; C12N015-31; C12N015-74; C12P021-02

ICI C12P021-02; C12R001:93

AB WO 200020609 A UPAB: 20000531

NOVELTY - A nucleic acid molecule (I) comprising a promoter functional in Escherichia coli and operatively coupled to a modified operon of a non-typeable strain of Haemophilus comprising A, B and C genes, where the A gene only contains a nucleic acid sequence encoding a mature high molecular weight protein (HMW) of the non-typeable strain of Haemophilus, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a vector adapted for transformation of a host comprising (I);

(2) a strain of E. coli transformed by the vector of (1) expressing a protective HMW protein of a non-typeable strain of Haemophilus;

(3) a recombinant protective HMW protein of a non-typeable strain of Haemophilus or immunogenic fragment or analog, produced by the transformed E. coli strain of (2);

(4) a plasmid vector (II) for expression of a HMW protein of a non-typeable strain of Haemophilus comprising the T7 promoter, a cloning site for insertion of a nucleic acid molecule into the plasmid vector and portions B and C of the operon of a non-typeable Haemophilus strain;

(5) an isolated and purified HMW 1 protein of a non-typeable strain of Haemophilus free from contamination by HMW 2 of the same strain of non-typeable Haemophilus;

(6) an isolated and purified HMW 2 protein of a non-typeable strain of Haemophilus free from contamination by HMW 1 of the same strain of non-typeable Haemophilus;

(7) an immunogenic composition comprising at least one immunogenically-active component which is (I), the recombinant protective HMW protein of (3) or the HMW proteins of (5) or (6) and a carrier;

(8) a method for inducing protection against disease caused by Haemophilus comprising administering to a susceptible host the composition of (7); and

(9) a method for producing a protective HMW protein of a non-typeable strain of Haemophilus comprising transforming E. coli with the vector of (1), growing the E. coli to express the encoded mature HMW protein and isolating and purifying the expressed HMW protein.

ACTIVITY - Antibacterial.

Groups of 8-9 chinchillas were immunized three times intramuscularly with 30 micro g of purified rHMW1 or rHMW2, 2 x 109 colony forming units (cfu) of heat inactivated (56 deg. C for 10 minutes) H. influenzae (NTHi) whole cells in alum or alum alone on days 0, 14 and 28. Serum samples and nasal wash samples were taken on day 42 for measurement of anti-HMW1 or anti-HMW2 antibody titers by ELISAs (enzyme linked immunosorbent assays). On day 44, animals were lightly anesthetized using xylazine/ketamine hydrochloric acid by intramuscular injection. Intranasal inoculations were

performed by passive inhalation (0.1 ml per animal) of freshly cultured streptomycin-resistant NTHi strain 12 in BHI (not defined) medium supplemented with hemin and nicotinamide adenine dinucleotide (NAD) both at 2 micro g ml-1. Dose of bacterial challenge was 1 x 108 cfu per animal. Nasopharyngeal lavages were performed 4 days post inoculation on chinchillas. 67-88% of control animals immunized with alum only had culture positive nasal lavage fluids but 67-80% of animals immunized with the rHMW1 protein purified from constructs abc (pDS-1046-1-1), a/abc (pBK86-1-1) or abc/cer (pBK-76-1-1) were largely protected. Animals immunized with constructs that did not contain intact ABC genes were 70-90% infected. Similar results were achieved with rHMW2 protein.

MECHANISM OF ACTION - Vaccine.

USE - The nucleic acids and vectors are used for the production of recombinant H. influenzae HMW proteins which can be used as vaccines to mediate a humoral or cell-mediated immune response to provide protection against H. influenzae induced diseases in humans.

The HMW proteins are also useful as antigens in immunoassays for detecting antibacterial, Haemophilus, HMW and/or peptide antibodies. The nucleotide sequences encoding the HMW proteins can be used to isolate and clone hmw genes from other non-typeable strains of Haemophilus in hybridization reactions.

ADVANTAGE - Including the cer gene of E. coli enhances the level of expression of mature HMW protein by the vectors.

Dwg.0/235

FS CPI
FA AB; DCN
MC CPI: B04-E03F; B04-E08; B04-F10A3E; B04-N03A0E; **B14-A01A**; **B14-S11B**; D05-H07; D05-H12A; D05-H12E; D05-H14A1; D05-H17A6

L54 ANSWER 21 OF 29 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
AN 2000-224701 [19] WPIX
DNC C2000-068762
TI Nucleic acid molecule encoding an inclusion membrane protein C of a strain of Chlamydia, useful as a vaccine for immunizing against Chlamydia infection.
DC B04 D16
IN DUNN, P L; MURDIN, A D; OOMEN, R P
PA (CONN-N) CONNAUGHT LAB LTD; (DUNN-I) DUNN P L; (MURD-I) MURDIN A D; (OOME-I) OOMEN R P; (AVET) **AVENTIS PASTEUR LTD**
CYC 89
PI WO 2000011181 A1 20000302 (200019)* EN 62 C12N015-31
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW
AU 9953660 A 20000314 (200031) C12N015-31
EP 1105490 A1 20010613 (200134) EN C12N015-31
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
US 6521745 B1 20030218 (200317) C07H021-04
US 6686339 B1 20040203 (200413) A61K048-00
US 2004228874 A1 20041118 (200477) C12Q001-68
ADT WO 2000011181 A1 WO 1999-CA766 19990819; AU 9953660 A AU 1999-53660 19990819; EP 1105490 A1 EP 1999-939280 19990819, WO 1999-CA766 19990819; US 6521745 B1 Provisional US 1998-97199P 19980820, Provisional US 1999-132961P 19990507, US 1999-377399 19990820; US 6686339 B1 Provisional US 1998-97199P 19980820, Provisional US 1999-132961P 19990507, WO 1999-CA766 19990819, US 2001-763063 20010615; US 2004228874 A1 Provisional US 1998-97199P 19980820, Provisional US 1999-132961P 19990507, Div ex WO 1999-CA766 19990819, Div ex US 2001-763063 20010615, US 2004-756320 20040114
FDT AU 9953660 A Based on WO 2000011181; EP 1105490 A1 Based on WO 2000011181; US 6686339 B1 Based on WO 2000011181; US 2004228874 A1 Div ex US 6686339
PRAI US 1999-132961P 19990507; US 1998-97199P 19980820;
US 1999-377399 19990820; US 2001-763063 20010615;
US 2004-756320 20040114
IC ICM A61K048-00; C07H021-04; C12N015-31; C12Q001-68
ICS A61K035-66; **A61K039-02**; **A61K039-118**; C07K014-295; C07K016-12; C12N015-63
AB WO 200011181 A UPAB: 20000419
NOVELTY - An isolated and purified nucleic acid molecule (750 base pairs (bp)) (I) encoding an inclusion membrane protein C (203 amino acids) (II) of a strain of Chlamydia (both sequences given in the specification), is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an expression cassette containing (I);

(2) an expression vector containing the expression cassette of (1); and

(3) a vaccine vector containing (I).

ACTIVITY - Antibacterial.

Groups of 7 to 9 week old male Balb/c mice (8 to 10 per group) were immunized intramuscularly (i.m.) and intranasally (i.n.) with plasmid DNA containing (I). Saline was given to groups of control animals. For i.m. immunization, alternate left and right quadriceps were injected with 100 micro g of DNA in 50 micro l of phosphate buffered saline (PBS) on three occasions at 0, 3 and 6 weeks. For i.n. immunization, anaesthetized mice aspirated 50 micro l of PBS containing 50 micro g DNA on three occasions at 0, 3 and 6 weeks. At week 8, immunized mice were inoculated i.n. with 5 multiply 10 inclusion forming units (IFU) of Chlamydia pneumoniae, strain AR39 in 100 micro l of buffer to test their ability to limit the growth of a sublethal C. pneumoniae challenge. Lungs were taken from mice at days 5 and 9 post-challenge and homogenized. The homogenate was frozen at -70 deg. C until assay. Dilutions of the homogenate were assayed for the presence of infectious Chlamydia by inoculation into monolayers of susceptible cells. The inoculum was centrifuged onto the cells at 300 revolutions per minute (rpm) for 1 hour, the cells were then incubated for three days at 35 deg. C in the presence of 1 micro g/ml cycloheximide. After incubation, the monolayers were fixed with formalin and methanol then immunoperoxidase stained for the presence of chlamydial inclusions using convalescent sera from rabbits infected with C. pneumoniae. Mice immunized i.n. and i.m. with pCAI115 had chlamydial lung titers less than 262500 in 4 of the 4 cases at day 5 and less than 250000 in 4 of the 4 cases at day 9. In contrast, mice sham immunized with saline had 202400 to 886800 IFU/lung (mean 429800) at day 5 and 78400-284600 IFU/lung (mean 157080) at day 9.

MECHANISM OF ACTION - Vaccine.

USE - (I) is useful for protecting against Chlamydia infection.

Dwg.0/4

FS CPI

FA AB; DCN

MC CPI: B04-B03C; B04-C01G; B04-E03; B04-E04; B04-E05; B04-E08; **B04-G01**; B04-N03A; B11-C08D2; B11-C08E; B12-K04A4; **B14-A01A**; **B14-S11B**; D05-H07; D05-H09; D05-H11; D05-H12A; D05-H12D1; D05-H12D5; D05-H12E; D05-H17A

L54 ANSWER 22 OF 29 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN

AN 2000-224700 [19] WPIX

DNC C2000-068761

TI New nucleic acid encoding POMP91A protein from a strain of Chlamydia useful for preventing, treating and diagnosing Chlamydia infection.

DC B04 D16

IN DUNN, P L; MURDIN, A D; OOMEN, R P

PA (CONN-N) CONNAUGHT LAB LTD; (AVET) **AVENTIS PASTEUR LTD**

CYC 89

PI WO 2000011180 A1 20000302 (200019)* EN 98 C12N015-31

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW

W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW

AU 9953659 A 20000314 (200031) C12N015-31

EP 1105489 A1 20010613 (200134) EN C12N015-31

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI

US 6693087 B1 20040217 (200413) A61K039-395 <--

ADT WO 2000011180 A1 WO 1999-CA765 19990819; AU 9953659 A AU 1999-53659 19990819; EP 1105489 A1 EP 1999-939279 19990819, WO 1999-CA765 19990819; US 6693087 B1 Provisional US 1998-97198P 19980820, US 1999-377850 19990820

FDT AU 9953659 A Based on WO 2000011180; EP 1105489 A1 Based on WO 2000011180

PRAI US 1998-97198P 19980820; US 1999-377850 19990820

IC ICM **A61K039-395**; C12N015-31

ICS A61K031-70; A61K048-00; C07H021-04; C07K014-295

AB WO 200011180 A UPAB: 20000419

NOVELTY - Isolated and purified nucleic acid molecule (I) encoding a POMP91A protein or polypeptide fragment of POMP91A from a strain of Chlamydia, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an expression cassette containing (I) under the control of elements required for expression of (I);

(2) an expression vector containing the expression cassette of (1);

(3) a vaccine vector comprising (I) under the control of elements required for expression of (I); and

(4) an antibody that specifically binds to a polypeptide with a protein sequence (II) of 947 amino acids or a polypeptide fragment containing the binding domain of (II).

ACTIVITY - Antibacterial.

MECHANISM OF ACTION - Vaccine.

Male Balb/c mice (7-9 weeks old) were immunized intramuscularly (100 micro g DNA in 50 micro l phosphate buffered saline) and intranasally (50 micro g DNA in 50 micro l phosphate buffered saline) with plasmid DNA pCAI327 containing the coding sequence of C. pneumonia POMP91A at 0, 3 and 6 week intervals. Control animals were given saline and plasmids pCAI116 and pCAI178 which express non-protective chlamydial antigens. After 8 weeks the immunized mice were inoculated intranasally with 5 x 105 IFU of C. pneumonia strain AR39 in 100 micro l SPG (sucrose, phosphate, glutamate) buffer. The lungs were taken from the mice at days 5 and 9 post challenge and homogenized in SPG buffer (7.5% sucrose, 5 mM glutamate, 12.5 mM phosphate pH 7.5). Dilutions of the homogenate were assayed for the presence of infectious Chlamydia by inoculation onto monolayers of susceptible cells. The cells were incubated for 3 days at 35 deg. C in the presence of 1 micro g/ml cycloheximide and then fixed with formalin and methanol then immunoperoxidase stained using convalescent sera from rabbits infected with C. pneumonia and metal enhanced DAB (not defined) as peroxidase substrate. Mice immunized with pCAI327 had chlamydial lung titers less than 21500 in 5 of 6 cases at day 9 but for saline immunized mice the average titer was 49069 IFU/lung.

USE - (I) is used to prevent, treat and diagnose Chlamydia infection.

Vaccine vectors containing (I) are used to induce an immune response against Chlamydia. (I) or a monoclonal antibody specific to POMP91A can be used to diagnose the presence of Chlamydia in a biological sample.

Dwg.0/41

FS CPI

FA AB; DCN

MC CPI: B04-C01G; B04-E03F; B04-E08; B04-F0100E; B04-F10A; **B04-G01**; B04-N03A; B11-C07A; B11-C08E5; B12-K04A4; B12-K04F; **B14-A01A** ; **B14-S11B**; D05-H09; D05-H11A; D05-H12A; D05-H12E; D05-H14; D05-H17A6

L54 ANSWER 23 OF 29 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN

AN 2000-096387 [08] WPIX

CR 1995-194089 [25]; 1997-052329 [05]; 1998-100410 [09]; 1999-404437 [34]; 1999-404459 [34]; 1999-404487 [34]; 2000-181144 [16]

DNC C2000-027984

TI Antibodies specific for transferrin receptor proteins of Haemophilus influenzae, useful for treating otitis media, epiglottitis, pneumonia and tracheobronchitis.

DC B04 D16

IN CHONG, P; GRAY-OWEN, S; HARKNESS, R; **KLEIN, M**; **LOOSMORE, S**; MURDIN, A; SCHRYVERS, A; **YANG, Y**

PA (CONN-N) CONNAUGHT LAB LTD

CYC 1

PI US 6008326 A 19991228 (200008)* 252 C07K016-12

ADT US 6008326 A CIP of US 1993-148968 19931108, CIP of US 1993-175116 19931229, US 1995-474671 19950607, Cont of US 1995-337483 19951108

PRAI US 1995-337483 19951108; US 1993-148968 19931108; US 1993-175116 19931229; US 1995-474671 19950607

IC ICM C07K016-12
ICS C07K016-28

AB US 6008326 A UPAB: 20000925

NOVELTY - An isolated and purified antibody (or monospecific antiserum) specific for a single transferrin receptor protein (or immunogenic fragment) of a strain of Haemophilus influenzae, is new.

ACTIVITY - Antibacterial; antiinflammatory; auditory; respiratory.

No relevant biological data given.

MECHANISM OF ACTION - Vaccine (antibody inhibition of bacterial growth and replication).

USE - The antibodies may be used for preventing and treating infections and disorders caused by H. influenzae, these include bacterial meningitis, otitis media, epiglottitis, pneumonia and tracheobronchitis. The antibodies may also be used detect the presence of H. influenzae proteins in samples according to standard methodologies (e.g. enzyme linked immunosorbant assay (ELISA)) and hence diagnose infections.

ADVANTAGE - The use of antibodies to treat bacterial infections

avoids the risk of antibiotic resistant bacterial strains developing. In the treatment of otitis media, the use of antibodies avoids the need for extensive and costly surgery (e.g. tonsillectomies, adenoidectomies and the insertion of tympanostomy tubes) to rectify hearing problems.
Dwg.0/30
FS CPI
FA AB; DCN
MC CPI: **B04-B04C1**; **B04-B04C7**; B04-C01; B04-E03D; B04-F0100E; B04-G04; B04-G07; B04-G21; B04-K01T; B04-N0300E; B11-A; B11-C07A1; B11-C07A4; B11-C08E; B11-C09; B12-K04A4; B12-M05; **B14-A01A**; B14-C03; B14-K01; B14-N02; B14-N05; **B14-S11B**; D05-A01A4; D05-A01B; D05-C12; D05-H04; D05-H07; D05-H09; D05-H11A; D05-H12A; D05-H14; D05-H17A4; D05-H17A5

L54 ANSWER 24 OF 29 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
AN 1999-620376 [53] WPIX
CR 1997-457533 [42]
DNC C1999-181129
TI Nucleic acid encoding transferrin binding protein 2 of **Moraxella** catarrhalis, useful for diagnostics, immunization and recombinant protein production.
DC B04 D16
IN DU, R; HARKNESS, R E; **KLEIN, M H**; **LOOSMORE, S M**; MYERS, L E; SCHRYVERS, A B; **YANG, Y**
PA (CONN-N) CONNAUGHT LAB LTD; (AVET) **AVENTIS PASTEUR LTD**
CYC 83
PI WO 9952947 A2 19991021 (199953)* EN 113 C07K014-79
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW
AU 9931350 A 19991101 (200013)
EP 1071715 A2 20010131 (200108) EN C07K014-79
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
BR 9909576 A 20011016 (200170) C07K014-79
JP 2002511490 W 20020416 (200242) 122 C07K014-705
US 6440701 B1 20020827 (200259) C12N015-31
AU 761008 B 20030529 (200346) C07K014-79
NZ 507978 A 20030725 (200357) C07K014-79
ADT WO 9952947 A2 WO 1999-CA307 19990412; AU 9931350 A AU 1999-31350 19990412; EP 1071715 A2 EP 1999-913049 19990412, WO 1999-CA307 19990412; BR 9909576 A BR 1999-9576 19990412, WO 1999-CA307 19990412; JP 2002511490 W WO 1999-CA307 19990412, JP 2000-543503 19990412; US 6440701 B1 CIP of US 1996-613009 19960308, CIP of US 1997-778570 19970103, CIP of WO 1997-CA163 19970307, US 1998-59584 19980414; AU 761008 B AU 1999-31350 19990412; NZ 507978 A NZ 1999-507978 19990412, WO 1999-CA307 19990412
FDT AU 9931350 A Based on WO 9952947; EP 1071715 A2 Based on WO 9952947; BR 9909576 A Based on WO 9952947; JP 2002511490 W Based on WO 9952947; AU 761008 B Previous Publ. AU 9931350, Based on WO 9952947; NZ 507978 A Based on WO 9952947
PRAI US 1998-59584 19980414; US 1996-613009 19960308;
US 1997-778570 19970103; WO 1997-CA163 19970307
IC ICM C07K014-705; C07K014-79; C12N015-31
ICS **A61K039-02**; A61K048-00; C07K014-22; C12N001-15; C12N001-19; C12N001-21; C12N005-10; C12N015-09; C12N015-63; C12P021-02; C12Q001-68
ICI C07K014-705; C12N015-09; C12R001:01
AB WO 9952947 A UPAB: 20030906
NOVELTY - Purified, isolated nucleic acid (I) encoding a transferrin binding protein (Tbp2) (II) from **Moraxella** catarrhalis strains M35, 3 or LES1, is new.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:
(a) vectors containing (I);
(b) transformed host cells containing the vector of (a);
(c) recombinant production of (II);
(d) recombinant (II) produced this way;
(e) an immunogenic composition containing (I) or recombinant (II) plus a carrier;
(f) a method for detecting **Moraxella** nucleic acid that encodes transferrin receptor protein by the formation of a hybrid with (I); and
(g) diagnostic kits for the method of (f).

ACTIVITY - Antibacterial; cytostatic; auditory.
MECHANISM OF ACTION - Tbp binding blocker.
(I) and (II) generate an immune response that includes anti-Tbp antibodies and opsonizing and/or bactericidal antibodies. By blocking binding to Tbp, the antibodies stop the bacterium from acquiring essential iron.
USE - (I) is used to produce recombinant (II); for identification or diagnosis of **Moraxella**, or for cloning related species, using hybridization assays; and for genetic immunization against **Moraxella** infections, e.g. otitis media. (II) are useful as antigens, either in vaccines (including components of conjugate vaccines that contain antigens from other bacteria or from tumors, in which case they elicit production of antitumor antibodies that may be coupled to chemotherapeutic agents or biologically active agents) or to raise antibodies (for use as diagnostic reagents and for treating **Moraxella** infections), also for detecting **Moraxella** antibodies.
Dwg.0/9
FS CPI
FA AB; DCN
MC CPI: B04-C01G; B04-E02F; B04-E05; B04-E08; B04-F0100E; **B04-G01**; B04-K01T; B11-C07A; B11-C07A1; B11-C08E5; B12-K04A; B12-K04E; B12-K04F; B14-A01; B14-H01; B14-N02; D05-H04; D05-H07; D05-H09; D05-H11; D05-H12A; D05-H12E; D05-H14; D05-H17A4; D05-H17A6; D05-H18B

L54 ANSWER 25 OF 29 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
AN 1997-373222 [35] WPIX
DNN N1997-309929 DNC C1997-120314
TI Lactoferrin receptor protein isolated from bacterial pathogen - used as, e.g. vaccine, carrier for antigens and immunogens and diagnostic agents.
DC A96 B04 D16 S03
IN BONNAH, R A; SCHRYVERS, A B
PA (CONN-N) CONNAUGHT LAB LTD; (AVET) **AVENTIS PASTEUR LTD**
CYC 2
PI CA 2162193 A 19970503 (199735)* 50 C12P021-08
US 6048539 A 20000411 (200025) A61K039-095 <--
US 6211343 B1 20010403 (200120) C08H001-00
US 6344200 B1 20020205 (200211) A61K039-02 <--
US 6348198 B1 20020219 (200221) A61K039-095 <--
ADT CA 2162193 A CA 1995-2162193 19951106; US 6048539 A US 1995-552232 19951102; US 6211343 B1 Div ex US 1995-552232 19951102, US 1999-370869 19990810; US 6344200 B1 Div ex US 1995-552232 19951102, US 1999-371126 19990810; US 6348198 B1 Div ex US 1995-552232 19951102, US 1999-371127 19990810
FDT US 6211343 B1 Div ex US 6048539; US 6344200 B1 Div ex US 6048539; US 6348198 B1 Div ex US 6048539
PRAI US 1995-552232 19951102; US 1999-370869 19990810; US 1999-371126 19990810; US 1999-371127 19990810
IC ICM **A61K039-02**; **A61K039-095**; C08H001-00; C12P021-08
ICS C07K001-36; C07K014-22; C07K016-12; G01N033-566; G01N033-569
AB CA 2162193 A UPAB: 19970828
Lactoferrin receptor protein (I) is isolated and purified from a bacterial protein and has molecular weight (MW) 70-90 kDa as determined by SDS-PAGE.
USE - The immunogenic composition can be used as a vaccine to a bacterial pathogen selected from Neisseria meningitides, N-gonorrhoeae, **Moraxella** catarrhalis, M. movis and M. lacunata (all claimed).
The proteins can be used in the diagnosis of and vaccination against diseases caused by bacterial pathogens that produce lactoferrin receptor proteins or proteins capable of raising antibodies reactive with lactoferrin receptor proteins. The proteins can be used as antigens, immunogenic preparations including vaccines, carriers for other antigens and immunogens and the generation of diagnostic reagents.
The bacterial pathogen may also be selected from **Haemophilus** influenzae, Streptococcus pneumoniae, Escherichia coli, Salmonella typhi, Streptococcus mutans, Cryptococcus neoformans, Klebsiella sp., Staphylococcus aureus and Pseudomonas aeruginosa.
(I; Lbp2) may also be used to induce immunity toward abnormal polysaccharides of tumour cells and to produce antitumour antibodies that can be conjugated to chemotherapeutic and bioactive agents.
Dwg.0/4
FS CPI EPI
FA AB
MC CPI: A12-V01; A12-V03C2; **B04-G01**; B04-N03; B11-C07A; B12-K04A; **B14-S11B**; D05-H07; D05-H09; D05-H13
EPI: S03-E14H4

L54 ANSWER 26 OF 29 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
AN 1996-342057 [34] WPIX
DNN N1996-287919 DNC C1996-108616
TI New immunogenic conjugate molecules - comprise a capsular polysaccharide of Streptococcus linked to an outer membrane protein of Haemophilus.
DC B04 D16 S03
IN FAHIM, R E F; GISONNI, L; KANDIL, A; **KLEIN, M H**; **YANG, Y** ; FAHIM, R E
PA (CONN-N) CONNAUGHT LAB LTD; (AVET) **AVENTIS PASTEUR LTD**
CYC 71
PI WO 9621465 A2 19960718 (199634)* EN 64 A61K039-09 <--
RW: AT BE CH DE DK EA ES FR GB GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG
W: AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU IS JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG US UZ VN
AU 9643254 A 19960731 (199645) A61K039-09 <--
WO 9621465 A3 19961010 (199648) A61K039-09 <--
US 5681570 A 19971028 (199749) 21 A61K039-385 <--
EP 805691 A1 19971112 (199750) EN A61K039-09 <--
R: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE
US 6177085 B1 20010123 (200107) A61K039-09 <--
US 6329512 B1 20011211 (200204) A23J001-00
ADT WO 9621465 A2 WO 1996-CA7 19960105; AU 9643254 A AU 1996-43254 19960105; WO 9621465 A3 WO 1996-CA7 19960105; US 5681570 A US 1995-371965 19950112; EP 805691 A1 EP 1996-900066 19960105, WO 1996-CA7 19960105; US 6177085 B1 Cont of US 1995-371965 19950112, US 1995-467884 19950606; US 6329512 B1 Cont of US 1995-371965 19950112, US 1995-467883 19950606
FDT AU 9643254 A Based on WO 9621465; EP 805691 A1 Based on WO 9621465; US 6177085 B1 Cont of US 5681570; US 6329512 B1 Cont of US 5681570
PRAI US 1995-371965 19950112; US 1995-467884 19950606; US 1995-467883 19950606
REP 1.Jnl.Ref; EP 172107; EP 338265; EP 389925; EP 497524; EP 497525; US 4673574; US 5098997; WO 9106652
IC ICM A23J001-00; **A61K039-09**; **A61K039-385**
ICS **A61K039-02**; **A61K039-102**; **A61K039-116**; C07K014-285; C07K017-10; G01N033-569
AB WO 9621465 A UPAB: 19960829
The following are claimed: (A) an immunogenic conjugate molecule (ICM) comprising at least a portion of a capsular polysaccharide (CP) of a Streptococcus strain linked to at least a portion of an outer membrane protein (OMP) of a Haemophilus strain, which are selected to provide in the ICM an enhanced immune response to the CP; (B) a diagnostic kit for determining the presence of antibodies in a sample specifically reactive with a CP of a Streptococcus strain or with an OMP of a Haemophilus strain; (C) a diagnostic kit for detecting the presence of a CP of a Streptococcus strain in a sample; (D) a diagnostic kit for detecting the presence of an OMP of a Haemophilus strain in a sample; (E) a process for individually isolating P1, P2 and P6 OMPs from a Haemophilus strain; and (F) an ICM comprising a P6 OMP of a Haemophilus strain linked to at least a portion of a CP of an encapsulated pathogen to provide in the ICM an enhanced immune response to the CP.

The ICM is pref. used with an adjuvant eg. AlPO4, Al(OH)3, QIL A, QS21, Ca3(PO4)2, Ca(OH)2, Zn(OH)2 a glycolipid analogue or an octadecyl ester of an amino acid. The OMPs of Haemophilus strains may be purified using eg. DEAE-Sephacel (RTM) and hydroxyapatite columns.

USE - The ICMs can be used in vaccines to confer protection against disease caused by the Streptococcus strain and the Haemophilus strain (claimed). The ICMs and antibodies produced using the ICMs can also be used in diagnostic procedures and kits.

ADVANTAGE - The ICMs provide an enhanced immune response to CPs of Streptococcus strains without the necessity to employ carrier proteins. They also provide an immune response to the OMP of the Haemophilus strain.

Dwg.0/8
FS CPI EPI
FA AB
MC CPI: B04-C02F; B04-G07; B04-N03; B11-C07A; B12-K04A4; **B14-A01A**; B14-A01B2; **B14-S11B**; D05-H04; D05-H07; D05-H10
EPI: S03-E14H4

L54 ANSWER 27 OF 29 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
AN 1994-200269 [24] WPIX
DNC C1994-091569
TI Nucleic acid encoding D15 outer membrane protein - especially of Haemophilus influenzae, and related proteins, vectors, antisera etc. useful in vaccines, for diagnosis and for passive immunisation..

DC B04 D16
IN CHONG, P; **KLEIN, M**; **LOOSMORE, S**; SIA, D Y C; THOMAS, W; **YANG, Y**; **LOOSMORE, S M**; SIA, D; **YANG, Y P**
PA (CONN-N) CONNAUGHT LAB LTD; (AVET) **AVENTIS PASTEUR LTD**
CYC 28
PI WO 9412641 A1 19940609 (199424)* 161 C12N015-31
RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE
W: AU BR CA FI JP KR NO NZ RU UA US
AU 9455565 A 19940622 (199436) C12N015-31
EP 668916 A1 19950830 (199539) EN C12N015-31
R: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE
JP 08502417 W 19960319 (199644) 156 C12N015-09
AU 683435 B 19971113 (199803) C12N015-31
BR 9307510 A 19990601 (199927) C12N015-31
JP 2907552 B2 19990621 (199930) 181 C12N015-09
US 6013514 A 20000111 (200010) A61K039-102 <--
US 6083743 A 20000704 (200036) A61K039-102 <--
RU 2141528 C1 19991120 (200041) C12N015-31
KR 216390 B1 19990816 (200104) C12N015-31
US 6264954 B1 20010724 (200146) A61K039-102 <--
ADT WO 9412641 A1 WO 1993-CA501 19931123; AU 9455565 A AU 1994-55565 19931123; EP 668916 A1 WO 1993-CA501 19931123, EP 1994-900671 19931123; JP 08502417 W WO 1993-CA501 19931123, JP 1994-512608 19931123; AU 683435 B AU 1994-55565 19931123; BR 9307510 A BR 1993-7510 19931123, WO 1993-CA501 19931123; JP 2907552 B2 WO 1993-CA501 19931123, JP 1994-512608 19931123; US 6013514 A WO 1993-CA501 19931123, US 1995-433522 19950912; US 6083743 A Cont of WO 1993-CA501 19931123, Cont of US 1995-433522 19950912, US 1998-135166 19980818; RU 2141528 C1 WO 1993-CA501 19931123, RU 1995-117238 19931123; KR 216390 B1 WO 1993-CA501 19931123, KR 1995-702081 19950523; US 6264954 B1 Cont of WO 1993-CA501 19931123, Div ex US 1995-433522 19950912, US 1997-942046 19971001
FDT AU 9455565 A Based on WO 9412641; EP 668916 A1 Based on WO 9412641; JP 08502417 W Based on WO 9412641; AU 683435 B Previous Publ. AU 9455565, Based on WO 9412641; BR 9307510 A Based on WO 9412641; JP 2907552 B2 Previous Publ. JP 08502417, Based on WO 9412641; US 6013514 A Based on WO 9412641; RU 2141528 C1 Based on WO 9412641
PRAI GB 1992-24584 19921123
REP 01Jnl.Ref; EP 281673; EP 378929; US 5013664; WO 9106652
IC ICM **A61K039-102**; C12N015-09; C12N015-31
ICS **A61K039-12**; **A61K039-395**; C07H021-04; C07K013-00; C07K014-11; C07K014-195; C07K014-285; C07K016-12; C12N015-62
ICA C12P021-02; G01N033-569
ICI C12N015-31, C12R001:21; C12P021-02, C12R001:19; C12N015-31, C12R001:21
AB WO 9412641 A UPAB: 19940803
New nucleic acid (I) contains at least a portion coding for a D15 outer membrane protein (omp) and has a sequence which is (a) any of 5 (all about 3000bp) reproduced in the specification, or complementary sequences or (b) hybridsable under stringent conditions with such sequences. Also new are (1) recombinant plasmids containing a segment of (I) at least 18 bp long (and opt. expression control elements, (12) proteins (II) encoded by these plasmids; (3) purified D15 omp (III); (4) synthetic polypeptides with sequences corresp. to (II) or (III), or their variants and mutants which retain immunogenicity; (5) antisera or antibodies specific for (II), (III) or immunologous containing them; (6) chimeric molecules consisting of (II) or (III) bonded to another polypeptides, protein or polysaccharides.
USE - (I), (II) and the synthetic polypeptides are useful in vaccines to protect against Haemophilus. D15 can also be used as a carrier for polysaccharide antigens to form conjugate vaccines against other bacteria; to induce immunity to abnormal polysaccharides or tumour cells and to generate anti-tumour antibodies, for coupling to toxins etc. (I), (II) synthetic peptides and antisera can also be used diagnostically (in hybridisation or immunoassay procedures) and antibodies can be used for passive immunisation.
Dwg.0/11
FS CPI
FA AB
MC CPI: B04-C01; B04-C02; B04-E02F; B04-E08; **B04-G01**; B04-N0300E; B04-N04; B12-K04; **B14-A01A**; B14-H01B; **B14-S11A**; **B14-S11B**; D05-H11; D05-H12A; D05-H12E; D05-H17A; D05-H17C

L54 ANSWER 28 OF 29 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
AN 1993-134388 [16] WPIX
DNC C1993-059997
TI Oligoside derived from antigenic polyoside of a pathogen - useful for treating and preventing e.g. bacterial infections and mycoses.
DC B04

IN MOREAU, M
PA (AVET) **AVENTIS PASTEUR**; (INMR) PASTEUR MERIEUX SERUMS & VACCINS SA; (INMR) PASTEUR MERIEUX SERUMS & VACCINS
CYC 24
PI WO 9307178 A1 19930415 (199316)* EN 38 C08B037-00
RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL SE
W: AU CA FI HU JP KR NO US
FR 2682388 A1 19930416 (199328) 29 C08B037-00
AU 9229469 A 19930503 (199334)
FI 9302626 A 19930609 (199334) C08B000-00
EP 562107 A1 19930929 (199339) FR
R: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL SE
NO 9302102 A 19930805 (199343)
JP 06506233 W 19940714 (199432) 10 A61K039-02 <--
AU 661071 B 19950713 (199535) C08B037-00
HU 70298 T 19950928 (199546)
US 6007818 A 19991228 (200007) A61K039-00 <--
NO 306905 B1 20000110 (200009) C08B037-00
US 6045805 A 20000404 (200024) A61K039-085 <--
KR 249709 B1 20000315 (200122) C08B037-00
HU 219672 B 20010628 (200143) C08B037-00
EP 562107 B1 20020502 (200230) FR C08B037-00
R: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL SE
DE 69232585 E 20020606 (200245) C08B037-00
ES 2174839 T3 20021116 (200302) C08B037-00
FI 110164 B1 20021213 (200306) A61K039-02 <--
CA 2098105 C 20030429 (200337) FR C08B037-00
ADT WO 9307178 A1 WO 1992-FR955 19921009; FR 2682388 A1 FR 1991-12478 19911010; AU 9229469 A AU 1992-29469 19921009; FI 9302626 A WO 1992-FR955 19921009, FI 1993-2626 19930609; EP 562107 A1 EP 1992-923831 19921009, WO 1992-FR955 19921009; NO 9302102 A WO 1992-FR955 19921009, NO 1993-2102 19930609; JP 06506233 W WO 1992-FR955 19921009, JP 1993-506690 19921009; AU 661071 B AU 1992-29469 19921009; HU 70298 T WO 1992-FR955 19921009, HU 1993-1682 19921009; US 6007818 A Div ex WO 1992-FR955 19921009, Div ex US 1993-70446 19931007, US 1995-474190 19950607; NO 306905 B1 WO 1992-FR955 19921009, NO 1993-2102 19930609; US 6045805 A Cont of WO 1992-FR955 19921009, Cont of US 1993-70446 19931007, US 1995-474194 19950607; KR 249709 B1 WO 1992-FR955 19921009, KR 1993-701727 19930609; HU 219672 B WO 1992-FR955 19921009, HU 1993-1682 19921009; EP 562107 B1 EP 1992-923831 19921009, WO 1992-FR955 19921009; DE 69232585 E DE 1992-632585 19921009, EP 1992-923831 19921009, WO 1992-FR955 19921009; ES 2174839 T3 EP 1992-923831 19921009; FI 110164 B1 WO 1992-FR955 19921009, FI 1993-2626 19930609; CA 2098105 C CA 1992-2098105 19921009, WO 1992-FR955 19921009
FDT AU 9229469 A Based on WO 9307178; EP 562107 A1 Based on WO 9307178; JP 06506233 W Based on WO 9307178; AU 661071 B Previous Publ. AU 9229469, Based on WO 9307178; HU 70298 T Based on WO 9307178; NO 306905 B1 Previous Publ. NO 9302102; HU 219672 B Previous Publ. HU 70298, Based on WO 9307178; EP 562107 B1 Based on WO 9307178; DE 69232585 E Based on EP 562107, Based on WO 9307178; ES 2174839 T3 Based on EP 562107; FI 110164 B1 Previous Publ. FI 9302626; CA 2098105 C Based on WO 9307178
PRAI FR 1991-12478 19911010
REP 3.Jnl.Ref; BE 1000118; EP 245045; EP 97407
IC ICM **A61K039-00**; **A61K039-02**; **A61K039-085**; C08B000-00; C08B037-00
ICS A61K031-70; A61K031-715; A61K035-74; A61K038-00; **A61K039-08**; **A61K039-09**; **A61K039-102**; **A61K039-106**; **A61K039-112**; C07H003-06; C07K001-00; C07K014-00
AB WO 9307178 A UPAB: 19930924
New oligoside (I), retaining at least one antigenic determinant of an antigenic polyoside (A) derived from a pathogen, is prepared by (1) oxido-reductive depolymerisation of (A); (2) recovering (I) and opt. (3) coupling it to a conjugation partner or to a carrier to form a conjugate.
Pref. (I) have mean elution constant on Sepharose 4BCL of 0.2-1, best 0.6-0.7 (equivalent to mol.weight 30000-60000, dextran equivalent) and is derived from the capsular polysaccharides of a pathogenic Staphylococcus, Streptococcus, Klebsiella, Salmonella, Escherichia, Neisseria or Haemophilus, especially Salmonella typhi, Strep. pneumoniae, N.meningitidis or H. influenzae.
(I) is pref. conjugated to a peptide, protein or organic polymer, most pref. pertussis, cholera, tetanus or diphtheria toxin.4 Alternatively, (I) is incorporated into a vector which stimulates immunogenicity in mammals, or into a liposome.
USE/ADVANTAGE - (I), especially in conjugated form, are useful in vaccines to protect against (or reduce the effects of) bacterial infections or mycoses. The usual dose (by any standard route) is 1-200 microg in 0.5ml. This method of (I) production produces fragments of homogeneous size which

retain the essential structural determinants; is simple and inexpensive, and can be applied to any polyoside structure.
0/6
FS CPI
FA AB
MC CPI: **B02-V02**; B04-B02B1; B04-C02F; **B12-A01**; B12-A02C

L54 ANSWER 29 OF 29 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
AN 1991-178107 [24] WPIX
DNC C1991-076917
TI New mammalian cytokine interleukin-11 - for use in treating immune system disorders, e.g. deficiencies in haematopoietic progenitor or stem cells, and cancer.
DC B04 D16
IN BENNETT, F K; PAUL, S R; **YANG, Y**; STEPHEN, R P; YANG, Y C
PA (CHIL-N) CHILDRENS MEDICAL CENT; (GEMY) GENETICS INST INC; (CHIL-N) CHILDRENS MED CENTER CORO
CYC 21
PI WO 9107495 A 19910530 (199124)*
RW: AT BE CH DE DK ES FR GB GR IT LU NL SE
W: AU CA HU JP KR US
AU 9067578 A 19910613 (199137)
EP 504177 A1 19920923 (199239) EN 69 C12N015-24
R: AT BE CH DE DK ES FR GB GR IT LI LU NL SE
DK 9200666 A 19920722 (199242) C07K013-00
US 5215895 A 19930601 (199323) 17 C12P021-02
JP 05504560 W 19930715 (199333) 69 C07K013-00
AU 644389 B 19931209 (199405) C07K013-00
HU 64595 T 19940128 (199409) C12N015-24
US 5371193 A 19941206 (199503) 18 C07K013-00
JP 2688539 B2 19971210 (199803) 20 C07K014-54
US 5700664 A 19971223 (199806) 20 C12N015-24
JP 10004982 A 19980113 (199812) 21 C12N015-09
MX 184567 B 19970430 (199821) C12N015-024
JP 2783361 B2 19980806 (199836) 21 C12N015-09
HU 215233 B 19981130 (199903) C12N015-24
US 5854028 A 19981229 (199908) C12N015-63
KR 9705050 B1 19970411 (199938) C12N015-24
US 6066317 A 20000523 (200032) A61K038-19
EP 504177 B1 20010207 (200109) EN C12N015-24
R: AT BE CH DE DK ES FR GB GR IT LI LU NL SE
DE 69033700 E 20010315 (200122) C12N015-24
CA 2069428 C 20010731 (200147) EN C12N015-24
ES 2156852 T3 20010801 (200149) C12N015-24
ADT EP 504177 A1 EP 1990-917548 19901120, WO 1990-US6803 19901120; DK 9200666 A WO 1990-US6803 19901120, DK 1992-666 19920521; US 5215895 A CIP of US 1989-441100 19891122, US 1990-526474 19900521; JP 05504560 W WO 1990-US6803 19901120, JP 1991-500597 19901120; AU 644389 B AU 1990-67578 19901120; HU 64595 T WO 1990-US6803 19901120, HU 1992-1712 19901120; US 5371193 A Div ex US 1990-526474 19900521, US 1993-17522 19930212; JP 2688539 B2 WO 1990-US6803 19901120, JP 1991-500597 19901120; US 5700664 A CIP of US 1989-441100 19891122, CIP of US 1990-526474 19900521, WO 1990-US6803 19901120, US 1992-949516 19921119; JP 10004982 A Div ex JP 1991-500597 19901120, JP 1997-51468 19901120; MX 184567 B MX 1992-3439 19920626; JP 2783361 B2 Div ex JP 1991-500597 19901120, JP 1997-51468 19901120; HU 215233 B WO 1990-US6803 19901120, HU 1992-1712 19901120; US 5854028 A CIP of US 1989-441100 19891122, CIP of US 1990-526474 19900521, Div ex US 1992-949516 19921119, US 1997-814459 19970310; KR 9705050 B1 WO 1990-US6803 19901120, KR 1992-701213 19920522; US 6066317 A CIP of US 1989-441100 19891122, Cont of US 1990-526474 19900521, Div ex US 1992-949516 19921119, Cont of US 1997-814459 19970310, US 1998-122525 19980724; EP 504177 B1 EP 1990-917548 19901120, WO 1990-US6803 19901120; DE 69033700 E DE 1990-633700 19901120, EP 1990-917548 19901120, WO 1990-US6803 19901120; CA 2069428 C CA 1990-2069428 19901120, WO 1990-US6803 19901120; ES 2156852 T3 EP 1990-917548 19901120
FDT EP 504177 A1 Based on WO 9107495; JP 05504560 W Based on WO 9107495; AU 644389 B Previous Publ. AU 9067578, Based on WO 9107495; HU 64595 T Based on WO 9107495; US 5371193 A Div ex US 5215895; JP 2688539 B2 Previous Publ. JP 05504560, Based on WO 9107495; US 5700664 A CIP of US 5215895, Based on WO 9107495; JP 2783361 B2 Previous Publ. JP 10004982; HU 215233 B Previous Publ. HU 64595, Based on WO 9107495; US 5854028 A CIP of US 5215895, Div ex US 5700664; US 6066317 A Cont of US 5215895, Div ex US 5700664, Cont of US 5854028; EP 504177 B1 Based on WO 9107495; DE 69033700 E Based on EP 504177, Based on WO 9107495; CA 2069428 C Based on WO 9107495; ES 2156852 T3 Based on EP 504177
PRAI WO 1990-US6803 19901120; US 1989-441100 19891122;

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     WO 1990-US6803U      19901120; US 1993-17522        19930212;
     US 1992-949516       19921119; US 1997-814459       19970310;
     US 1998-122525       19980724
REP  2.Jnl.Ref
IC   ICM  A61K038-19; C07K013-00; C12N015-024; C12N015-09; C12N015-24;
          C12N015-63; C12P021-02
     ICS  A61K037-02; A61K037-66; A61K038-20; A61K039-395;
          C07H015-12; C07K013-000; C07K014-00; C07K015-06; C12N001-21;
          C12N015-19; C12P021-002
ICA  A61K038-00; C07H021-04; C07K014-54; C12N005-10
ICI  A61K038:00; A61K037-02, A61K037:66; C12P021-02, C12R001:91; C12P021-02,
          C12R001:91
AB   WO   9107495 A UPAB: 19940329
     Mammalian IL-11 (I), free from other proteins, is new. (I) has a molecular
     weight of 20 kD (SDS-PAGE and calculations) and biological activity in T1165
     assays, megakaryoctye colony forming assays with IL-3 and B cell plaque
     forming assays. Also new are a process for producing (I) recombinantly,
     DNA encoding (I), a cell transformed with this DNA, a plasmid vector
     containing the DNA and homogeneous mammalian (I) having biological activity in
     the T1165 assay without IL-6. Also present in the compsn. may be other
     cytokine e.g. IL-1 to IL-9, GM-CSF, G-CSF, M-CSF, the interferons,
     Meg-CSF, MIF, LIF, TNF and erythropoietin, haematopoietins e.g. IL-3 or
     IL-6, growth factors or antibodies. Dosage of (I) is 1-1000 micro-g or
     50-5000 units, where a unit is the concentration leading to half maximal
     stimulation in the T1165 assay.
          USE/ADVANTAGE - (I) is used to stimulate or treat disorders of the
     immune system e.g. deficiencies in haematopoietic progenitor stem cells
     (e.g. following bone marrow transplantation), and to treat cancer and
     other pathological states caused by disease, exposure to radiation or
     drugs and e.g. leukopenia, bacterial and viral infections, anaemia and B
     or T cells deficiencies. (I) is also used to prolong the effects of
     vaccines. Use of (I) does not create undesirable side effects. @(69pp
     Dwg.No.0/2)
     0/2
FS   CPI
FA   AB
MC   CPI: B04-B02B1; B04-B04A1; B04-C01G; B12-A01; B12-A06; B12-A07;
          B12-G05; B12-G07; B12-H01; D05-C12; D05-H12


=> d all l56 tot


L56  ANSWER 1 OF 4  WPIX  COPYRIGHT 2004 THE THOMSON CORP on STN
AN   2000-594517 [56]   WPIX
CR   2000-594515 [56]; 2000-594516 [56]; 2000-679550 [66]; 2001-006956 [01]
DNC  C2000-177617
TI   A Streptococcus pneumoniae vaccine for preventing pneumonia and meningitis
     comprises a polysaccharide antigen conjugated to protein D from
     Haemophilus influenzae.
DC   B04 D16
IN   CAPIAU, C; DESCHAMPS, M; DESMONS, P M; LAFERRIERE, C A J; POOLMAN, J;
     PRIEELS, J; POOLMAN, J P J
PA   (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
CYC  93
PI   WO 2000056360   A2 20000928 (200056)* EN   77    A61K039-385    <--
        RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL
            OA PT SD SE SL SZ TZ UG ZW
         W: AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ
            EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK
            LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI
            SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
     AU 2000034307   A  20001009 (200103)             A61K039-385    <--
     BR 2000009163   A  20011226 (200206)             A61K039-385    <--
     EP 1163000      A2 20011219 (200206)  EN         A61K039-385    <--
         R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
            RO SE SI
     CZ 2001003380   A3 20020313 (200223)             A61K039-385    <--
     KR 2002000549   A  20020105 (200244)             A61K039-385    <--
     HU 2002000367   B  20020528 (200249)             A61K039-385    <--
     CN 1351503      A  20020529 (200258)             A61K039-385    <--
     AU 750913       B  20020801 (200261)             A61K039-385    <--
     ZA 2001007637   A  20020828 (200264)       97    A61K000-00
     JP 2002540075   W  20021126 (200307)       96    A61K039-09     <--
     MX 2001009455   A1 20020301 (200362)             A61K039-005    <--
     NZ 513840       A  20040227 (200418)             A61K039-385    <--
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ADT WO 2000056360 A2 WO 2000-EP2468 20000317; AU 2000034307 A AU 2000-34307 20000317; BR 2000009163 A BR 2000-9163 20000317, WO 2000-EP2468 20000317; EP 1163000 A2 EP 2000-912626 20000317, WO 2000-EP2468 20000317; CZ 2001003380 A3 WO 2000-EP2468 20000317, CZ 2001-3380 20000317; KR 2002000549 A WO 2000-EP2468 20000317, KR 2001-711939 20010919; HU 2002000367 B WO 2000-EP2468 20000317, HU 2002-367 20000317; CN 1351503 A CN 2000-807528 20000317; AU 750913 B AU 2000-34307 20000317; ZA 2001007637 A ZA 2001-7637 20010917; JP 2002540075 W JP 2000-606264 20000317, WO 2000-EP2468 20000317; MX 2001009455 A1 WO 2000-EP2468 20000317, MX 2001-9455 20010919; NZ 513840 A NZ 2000-513840 20000317, WO 2000-EP2468 20000317

FDT AU 2000034307 A Based on WO 2000056360; BR 2000009163 A Based on WO 2000056360; EP 1163000 A2 Based on WO 2000056360; CZ 2001003380 A3 Based on WO 2000056360; KR 2002000549 A Based on WO 2000056360; HU 2002000367 B Based on WO 2000056360; AU 750913 B Previous Publ. AU 2000034307, Based on WO 2000056360; JP 2002540075 W Based on WO 2000056360; MX 2001009455 A1 Based on WO 2000056360; NZ 513840 A Based on WO 2000056360

PRAI GB 1999-16677 19990715; GB 1999-6437 19990319; GB 1999-9077 19990420; GB 1999-9466 19990423

IC ICM A61K000-00; **A61K039-005**; **A61K039-09**; **A61K039-385**

ICS A61K035-74; **A61K039-02**; **A61K039-04**; **A61K039-085**; **A61K039-095**; **A61K039-102**; **A61K039-112**; **A61K039-116**; **A61K039-39**; A61P011-00; A61P031-04; C07K014-285

ICA C12N015-09

AB WO 200056360 A UPAB: 20040316

NOVELTY - A polysaccharide conjugate antigen (I) comprising a polysaccharide antigen derived from a pathogenic bacterium conjugated to protein D (or a fragment) from **Haemophilus** influenzae, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an immunogenic composition comprising (I);

(2) an immunogenic composition comprising Neisseria meningitidis protein D polysaccharide conjugate antigen;

(3) an immunogenic composition comprising **Haemophilus** influenzae b protein D polysaccharide conjugate antigen;

(4) an immunogenic composition comprising conjugated capsular polysaccharides of Streptococcus pneumoniae, **Haemophilus** influenzae b , meningococcus C and meningococcus Y, the carrier protein for at least one of the polysaccharides is protein D from H. influenzae;

(5) a vaccine comprising (1)-(4); and

(6) a method for producing an immunogenic composition to a pathogenic bacterium comprising:

(a) isolating a polysaccharide antigen from a pathogenic bacterium;

(b) activating the polysaccharide; and

(c) conjugating the polysaccharide to protein D.

ACTIVITY - Antibacterial. No biological data given

MECHANISM OF ACTION - Vaccine.

USE - The bacterial polysaccharide antigen vaccines are used to induce an immune response to Streptococcus pneumoniae and is used to prevent pneumonia, bacteremia, meningitis and acute otitis media.

ADVANTAGE - The conjugation of the antigen to a larger immunogenic protein increases the induced immune response, especially in children less than two years old.

Dwg.0/3

FS CPI

FA AB; DCN

MC CPI: **B04-B04C1**; B04-C02F; B04-C02V; B04-F10A; B04-F10B; B04-N03; B04-N05; B04-N06; B12-M07; B14-A01B2; **B14-S11B**; D05-H07

L56 ANSWER 2 OF 4 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN

AN 1994-025891 [03] WPIX

CR 1992-249778 [30]

DNC C1994-011927

TI New adhesion-oligosaccharide conjugate - useful as vaccine for Haemophilus influenzae, and new synthetic poly ribosyl ribotol phosphate oligosaccharide(s).

DC B04 D16

IN KRIVAN, H C; NORBERG, N T; SAMUELS, J E; SAMUEL, J E

PA (MICR-N) MICROCARB INC; (ANTE-N) ANTEX BIOLOGICS FORMERLY MICROCARB INC; (ANTE-N) ANTEX BIOLOGICS INC; (ANTE-N) ANTEXBIOLOGICS INC

CYC 20

PI WO 9400149 A1 19940106 (199403)* EN 124 A61K039-00 <--

RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE

W: CA JP US

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     EP 647139       A1 19950412 (199519)  EN         A61K039-00     <--
        R: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE
     JP 07509693     W  19951026 (199551)       33    C07K014-11
     US 5679547      A  19971021 (199748)       35    C12P021-00
     EP 647139       A4 19970903 (199815)             A61K039-00     <--
     US 5721115      A  19980224 (199815)       36    C12P021-06
     JP 2805174      B2 19980930 (199844)       42    C07K014-11
     US 5843463      A  19981201 (199904)             A61K039-102    <--
     CA 2138765      C  19990907 (200003)  EN         C12N015-31
ADT  WO 9400149 A1 WO 1993-US6016 19930622; EP 647139 A1 EP 1993-916717
     19930622, WO 1993-US6016 19930622; JP 07509693 W WO 1993-US6016 19930622,
     JP 1994-502559 19930622; US 5679547 A CIP of WO 1986-DK14 19860206, CIP of
     US 1990-631698 19901221, CIP of US 1991-810966 19911220, Div ex US
     1992-903079 19920622, US 1995-485569 19950607; EP 647139 A4 EP 1993-916717
     19930622; US 5721115 A CIP of US 1990-631698 19901221, CIP of US
     1991-810966 19911220, Div ex US 1992-903079 19920622, US 1995-480993
     19950607; JP 2805174 B2 WO 1993-US6016 19930622, JP 1994-502559 19930622;
     US 5843463 A CIP of US 1990-631698 19901221, CIP of US 1991-810966
     19911220, US 1992-903079 19920622; CA 2138765 C CA 1993-2138765 19930622,
     WO 1993-US6016 19930622
FDT  EP 647139 A1 Based on WO 9400149; JP 07509693 W Based on WO 9400149; JP
     2805174 B2 Previous Publ. JP 07509693, Based on WO 9400149; CA 2138765 C
     Based on WO 9400149
PRAI US 1992-903079       19920622; WO 1986-DK14         19860206;
     US 1990-631698       19901221; US 1991-810966       19911220;
     US 1995-485569       19950607; US 1995-480993       19950607
REP  2.Jnl.Ref; EP 276516; EP 320942; US 4455296; 3.Jnl.Ref; EP 338265; WO
     9210936
IC   ICM  A61K039-00; A61K039-102; C07K014-11; C12N015-31;
          C12P021-00; C12P021-06
     ICS  A61K037-02; A61K038-00; A61K039-02; C07H001-04; C07H013-00;
          C07H015-02; C07H021-02; C07H021-04; C07K003-28; C07K014-00;
          C07K014-285; C07K015-00; C07K019-00; C12N001-21; C12N015-06;
          C12N015-09; C12P017-00; C12P021-02; C12P021-04; C12Q001-34;
          G01N033-53
AB   WO   9400149 A UPAB: 20000118
     An immunogenic oligosaccharide-protein conjugate (I) comprising a
     polyribosyl-ribotol phosphate (PRP) fragment coupled to an Haemophilus
     influenzae adhesin protein (II) is new.
          (II) is pref. an H. influenzae outer membrane protein with a mol.weight
     of about 47000 daltons, and purified (II) is claimed per se.
          USE - (I), as well as their protein components, may be used in
     vaccines against both invasive and non-invasive strains of H. influenzae.
     (I), (II) and oligomers are also useful as reagents for scientific
     research on the properties of pathogenicity, virulence and infectivity of
     H. influenzae, as well as host defence mechanisms. E.g. the novel DNA can
     be used in an oligonucleotide probe to identify the DNA of other
     microorganisms which might encode an adhesion for such organism. (I) can
     be used to prepare a monoclonal antibody useful to further purity compsns.
     containing (II) by affinity chromatography. (II) could also be applied to
     standard immunoassays to screen for the presence of antibodies to H.
     influenza in a sample. (IV) are intermediates in the synthesis of (III),
     which may be used to prepare (Ia).
     Dwg.0/9
FS   CPI
FA   AB; DCN
MC   CPI: B04-C02; B04-C02X; B04-E02F; B04-E03F; B04-E08; B04-N03; B05-B01M;
          B12-K04; B14-A01A; B14-S11B; D05-H07; D05-H12;
          D05-H12E

L56  ANSWER 3 OF 4  WPIX  COPYRIGHT 2004 THE THOMSON CORP on STN
AN   1990-132245 [17]   WPIX
DNC  C1990-058101
TI   Capsular polysaccharide adhesion antigen - from coagulase negative
     bacteria used to prevent or treat infection caused by staphylococcal
     strains.
DC   A96 B04 D16 D22
IN   PIER, G B
PA   (BGHM) BRIGHAM & WOMENS HOSPITAL; (BGHM) BRIGHAM & WOMENS HOSPITAL INC;
     (BRIG-N) BRIGHAM & WOMENS HO; (PIER-I) PIER G B
CYC  15
PI   WO 9003398      A  19900405 (199017)*      41
        RW: AT BE CH DE FR GB IT LU NL SE
         W: AU JP
     AU 8943430      A  19900418 (199027)
     EP 436648       A  19910717 (199129)
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        R: AT BE CH DE FR GB IT LI LU NL SE
     US 5055455      A  19911008 (199143)
     JP 04501718     W  19920326 (199219)       15
     CA 1317288      C  19930504 (199323)             C12P019-04
     EP 436648       A4 19911113 (199520)
     US 5980910      A  19991109 (199954)             A61K039-09     <--
     US 6399066      B1 20020604 (200242)             A61K039-40     <--
     US 2002136730   A1 20020926 (200265)             A61K039-40     <--
     US 6743431      B2 20040601 (200436)             A61K039-085    <--
ADT  EP 436648 A EP 1989-911517 19890928; US 5055455 A US 1988-250417 19880928;
     JP 04501718 W JP 1989-510684 19890928; CA 1317288 C CA 1989-614255
     19890928; EP 436648 A4 EP 1989-911517         ; US 5980910 A Div ex US
     1988-250417 19880928, Cont of US 1991-727982 19910710, Cont of US
     1993-33756 19930318, US 1994-336688 19941107; US 6399066 B1 Div ex US
     1988-250417 19880928, Cont of US 1991-727982 19910710, Cont of US
     1993-33756 19930318, Div ex US 1994-336688 19941107, US 1999-393832
     19990910; US 2002136730 A1 Div ex US 1988-250417 19880928, Cont of US
     1991-727982 19910710, Cont of US 1993-33756 19930318, Div ex US
     1994-336688 19941107, Div ex US 1999-393832 19990910, US 2002-93582
     20020308; US 6743431 B2 Div ex US 1988-250417 19880928, Cont of US
     1991-727982 19910710, Cont of US 1993-33756 19930318, Div ex US
     1994-336688 19941107, Div ex US 1999-393832 19990910, US 2002-93582
     20020308
FDT  US 5980910 A Div ex US 5055455; US 6399066 B1 Div ex US 5055455, Div ex US
     5980910; US 2002136730 A1 Div ex US 5055455, Div ex US 5980910, Div ex US
     6399066; US 6743431 B2 Div ex US 5055455, Div ex US 5980910, Div ex US
     6399066
PRAI US 1988-250417       19880928; US 1991-727982       19910710;
     US 1993-33756        19930318; US 1994-336688       19941107;
     US 1999-393832       19990910; US 2002-93582        20020308
REP  US 4789735; US 4830852; 2.Jnl.Ref; EP 302781; FR 2410043
IC   A61K037-00; A61K039-02; A61K039-08; C07K015-04;
     C07K015-14; C12P021-00
     ICM  A61K039-085; A61K039-09; A61K039-40;
          C12P019-04
     ICS  A61K037-00; A61K039-02; A61K039-08; C07K015-04;
          C07K015-14; C08B037-00; C12P021-00
AB   WO   9003398 A UPAB: 19991122
     The following are m (A) a capsular polysaccharide adhesion from
     coagulase-negative bacteria (e.g. Staphylococcus epidermidis or hominus
     strains) in pure form; (B) a vaccine against coagulase-negative
     staphylococci comprising a vehicle containing the pure capsular polysaccharide
     adhesionm antigen specific to the staphylocci; the vehicle may be e.g.
     Freund's complete or incomplete adjuvant, saline, serum albumin or
     saponin; (C) monovalent antibody (MAb) against capsular polysaccharide
     adhesin of coagulase-negative bacteria.
          USE/ADVANTAGE - The polysaccharide adhesin can produce
     antibodies which prevent the adherence of adhesin-bearing
     pathogenic bacteria to the recipients tissue cells or polymeric medical
     prostheses or catheters and can therefore be used for preventing or
     treating diseases and infections due to staphylococci. The adhesin
     can also be used to screen  polymeric mateirals for resistance to
     attachment by bacteria. The MAbs can be administered to prevent or reduce
     infections by coagulase-negative staphylococci. The adhesin
     -specific antibodies can also be used in affinity chromatography and in
     diagnosis and assays.
     Dwg.0/5
FS   CPI
FA   AB
MC   CPI: A09-C; A12-V01; A12-V02; B02-V02; B04-B04C5;
          B04-C02; B12-A01; D05-H07; D05-H11

L56  ANSWER 4 OF 4  WPIX  COPYRIGHT 2004 THE THOMSON CORP on STN
AN   1983-42112K [18]    WPIX
DNN  N1983-076352        DNC C1983-041031
TI   Mono clonal antibodies against bacterial adhesion(s) - useful for treating
     diarrhoea in neonates, respiratory diseases and burns.
DC   B04 D16 S03
IN   SADOWKI, P L
PA   (MOLE-N) MOLECULAR GENETICS INC
CYC  12
PI   EP 77734         A  19830427 (198318)* EN   37
        R: BE DE FR GB IT LU NL
     AU 8289454       A  19830428 (198324)
     JP 58099423      A  19830613 (198329)
     DK 8204621       A  19830620 (198331)
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US 4443549 A 19840417 (198418)
CA 1187822 A 19850528 (198526)
US 4652448 A 19870324 (198714)
ADT US 4443549 A US 1982-428622 19821007; US 4652448 A US 1983-558518 19831206
PRAI US 1981-312993 19811019; US 1982-428622 19821007;
US 1983-558518 19831206
REP 4.Jnl.Ref; No-SR.Pub
IC **A61K039-40**; C12N005-00; C12N015-00; C12P001-00; C12R001-91;
G01N033-54
AB EP 77734 A UPAB: 19930925
Production of anti-adhesion antibodies comprises fusion of a cell producing the antibodies with a myeloma to provide a fused cell hybrid, followed by propagation of the hybrid and collection of the antibodies.

Production of antipilus antibodies comprises injection of a BALB/C mouse with a bacterial pilus to induce formation of antibacterial pilus antibody-producing cells of the mouse. Then a fused cell hybrid of the cells is produced with P3/NSI/1-Ag4-1 myeloma cells, and the hybrid is cultured in vitro in selective HAT medium, isolated and propagated and the resulting antibodies are harvested.

Continuous cell line producing anti-adhesion antibodies and comprising a fused cell hydrid of an anti-adhesion antibody-producing cell and a myeloma cell is new, and cell line 2BD4E4 (ATCC HB8178) is new.

Monoclonal antibodies against Escherichia coli adhesions are useful for admin. to animals and humans, especially for the prophylaxis and treatment of enterotoxigenic diarrhoeal diseases in neonatal calves, lambs and piglets. The antibodies are obtainable in lage amts. and are useful as highly sensitive and specific probes in medicinal and veterinary diagnosis, etc. The anti-adhesion antibodies may also be useful against respiratory diseases and burn infections and against other bacterial diseases. The antibodies are also useful in affinity chromatography systems and in the assay of adhesions.
FS CPI EPI
FA AB
MC CPI: B04-B04A; **B04-B04C**; **B12-A01**; B12-J04; B12-K04;
D05-H
EPI: S03-E14H4

=> d all l61 tot

L61 ANSWER 1 OF 5 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
AN **2000-038242** [03] WPIX
CR 1993-093726 [11]; 2000-012250 [01]
DNC C2000-009691
TI Purified **Moraxella** catarrhalis outer membrane proteins useful for vaccinating against chronic otis media, acute maxillary sinusitis and other bronchopulmonary and lower respiratory tract infections.
DC B04 D16
IN HANSEN, E J; HELMINEN, M E; MACIVER, I
PA (TEXA) UNIV TEXAS
CYC 1
PI US 5993826 A 19991130 (200003)* 50 A61K039-102 <--
ADT US 5993826 A CIP of US 1991-745591 19910815, CIP of WO 1992-US6869 19920814, US 1993-25363 19930302
FDT US 5993826 A CIP of US 5552146
PRAI US 1993-25363 19930302; US 1991-745591 19910815;
WO 1992-US6869 19920814
IC ICM **A61K039-102**
ICS **A61K039-02**; C07K014-285; C07K016-102
AB US 5993826 A UPAB: 20000925
NOVELTY - A purified **Moraxella** catarrhalis (also called Branhamella catarrhalis and Neisseria catarrhalis) 80 kiloDalton (kD) CopB outer membrane protein (I), is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:
(i) an antigen composition (II) prepared by:
(1) introducing a recombinant expression vector including a DNA segment encoding (I) into a recombinant host cell;
(2) culturing the host cell under suitable conditions for the expression of (I); and
(3) collecting the expressed antigen; and
(ii) a method (III) for inducing an antibody response to M. catarrhalis 80 kD CopB antigens in an animal, comprising administering (I).

ACTIVITY - Auditory; Respiratory active.
MECHANISM OF ACTION - Vaccine, administration of (I) stimulates an immune response against M. catarrhalis antigens in a patient.

Groups of mice were immunized with the 8B6 monoclonal antibody, specific for the 80 kD outer membrane protein of M. catarrhalis. Control mice were immunized with an irrelevant antibody, 2H11 which is specific for **Haemophilus** ducreyi. Doses of 150 micrograms were used 18 hours prior to bacterial challenge. 5 Microliter doses of bacterial suspension, containing M. catarrhalis strain 035E, were inoculated into the lungs of the mice. 6 Hours after inoculation, the mice were sacrificed and the number of bacteria remaining in the lungs was determined. It was found that where the 2H11 antibody was used, 97% of the initial bacterial population remained. However, just 38% remained when the 8B6 antibody was used.

USE - (I) may be used to vaccinate against M. catarrhalis, a pathogen implicating in causing chronic otis media, acute maxillary sinusitis and other bronchopulmonary and lower respiratory tract infections.

Dwg.0/13

FS CPI

FA AB; DCN

MC CPI: **B04-B04C1**; B04-C01G; B04-E03F; B04-F0100E; B04-F10A5; B04-G09; B04-N03A; B11-C07A; B11-C08E1; B11-C09; B12-M07; B12-M08; B14-A01A5; B14-K01; **B14-N02**; B14-N04; B14-N05; **B14-S11B**; D05-C12; D05-H04; D05-H07; D05-H08; D05-H11; D05-H12A; D05-H14; D05-H17A5; D05-H18

L61 ANSWER 2 OF 5 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN

AN **1999-560502** [47] WPIX

CR 1990-304862 [40]; 1997-131755 [12]; 1998-413151 [35]; 2002-664558 [71]

DNC C1999-163303

TI Isolated Haemophilus influenzae protein e useful for producing vaccines against meningitis, pneumonia, bacteremia, postpartum sepsis, acute febril tracheo-bronchitis and otitis media.

DC B04 D16

IN GREEN, B A; ZLOTNICK, G W

PA (PRAX-N) PRAXIS BIOLOGICS INC

CYC 1

PI US 5955580 A 19990921 (199947)* 23 C07K001-00

ADT US 5955580 A CIP of US 1989-320971 19890309, Div ex US 1990-491466 19900309, US 1995-449406 19950523

FDT US 5955580 A Div ex US 5601831

PRAI US 1990-491466 19900309; US 1989-320971 19890309; US 1995-449406 19950523

IC ICM C07K001-00

ICS **A61K039-102**; C07K014-285

AB US 5955580 A UPAB: 20021108

NOVELTY - Isolated Haemophilus influenzae protein e, purified of endotoxins, is new.

DETAILED DESCRIPTION - An isolated protein e from Haemophilus influenzae (free from endotoxic contamination). The protein (when administered to a mammal) is capable of raising antibodies in the mammal which are protective in the infant rat passive immunization model.

USE - The proteins can be used for vaccination against nontypable and typable H. influenzae. They can be used to immunize against diseases including meningitis, pneumonia, bacteremia, postpartum sepsis, acute febrile tracheo-bronchitis or otitis media. The bactericidal antibodies induced by protein e epitopes can be used to passively immunize an individual against H. influenzae. The antibody products can also be used for the detection of e proteins (e.g. via enzyme linked immunoabsorbant assay (ELISA)) and for the diagnosis of H. influenzae disease.

Dwg.0/8

FS CPI

FA AB; DCN

MC CPI: **B04-B04C1**; B04-B04M; B04-C01; B04-E03F; B04-F0100E; B04-F10A; B04-G07; B04-N0300E; B11-A; B11-C07A; B11-C08D; B11-C08E1; B11-C09; B12-K04A4; B12-K04E; B12-M05; **B14-A01A**; B14-C03; B14-G01; B14-G03; B14-K01; B14-L06; **B14-N02**; B14-N16; B14-P01; **B14-S11B**; D05-A01A4; D05-A01B; D05-C12; D05-H04; D05-H07; D05-H09; D05-H11; D05-H12A; D05-H17A5; D05-H18

L61 ANSWER 3 OF 5 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN

AN **1999-517930** [43] WPIX

CR 1996-010692 [01]

DNC C1999-151167

TI Antigenic peptide, oligopeptide and protein useful as vaccine for Moraxella catarrhalis.

DC B04 D16

IN MURPHY, T F

PA (UYNY) UNIV NEW YORK STATE RES FOUND

CYC 1
PI US 5948412 A 19990907 (199943)* 20 A61K039-02 <--
ADT US 5948412 A CIP of US 1994-245758 19940517, US 1997-810655 19970303
FDT US 5948412 A CIP of US 5607846
PRAI US 1997-810655 19970303; US 1994-245758 19940517
IC ICM **A61K039-02**
ICS C07K014-00
AB US 5948412 A UPAB: 19991124
NOVELTY - Pure antigenic peptide, oligopeptide or protein (I) with one or more epitopes of E, an outer membrane protein of Moraxella catarrhalis is new.

DETAILED DESCRIPTION - E has an apparent molecular weight of 35000-50000 daltons by sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE) and amino acid residues 26-429 of a defined sequence of 459 amino acids given in the specification. E is a heat-modifiable protein.

An INDEPENDENT CLAIM is also included for an antigenic formulation comprising a pure peptide, oligopeptide or protein with one or more epitopes of E.

ACTIVITY - Antibacterial.

MECHANISM OF ACTION - Vaccine.

USE - (I) can be used as immunogens in prophylactic and/or therapeutic vaccine formulations for active immunization and for generating protein-specific and peptide-specific antisera useful for passive immunization.

Antigenic formulations comprising (I) can be used to prevent otitis media, sinusitis, conjunctivitis and lower respiratory tract infections caused by Moraxella catarrhalis. (I) can be used as antigens for diagnostic immunoassays.

Dwg.0/3
FS CPI
FA AB; DCN
MC CPI: **B04-B04C2**; B04-B04D5; B04-C01G; B04-E03F; B04-E08; B04-F0100E; B04-N03A; B04-N04B0E; B11-C07A4; B12-K04A4; **B14-A01A**; B14-K01; **B14-N02**; B14-N03; **B14-S11B**; D05-C12; D05-H07; D05-H09; D05-H11; D05-H12A; D05-H12D5; D05-H12E; D05-H14; D05-H17A5; D05-H18; D05-H19

L61 ANSWER 4 OF 5 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
AN **1986-208380** [32] WPIX
DNC C1986-089596
TI Oral vaccine for prophylaxis of periodontitis - comprises vaccine as antigen containing whole cell, pilus or extract of periodontitis causing bacterium.
DC B04 D16 D21
PA (LIOY) LION CORP
CYC 1
PI JP 61140527 A 19860627 (198632)* 4
JP 06062431 B2 19940817 (199431) 5 A61K039-02 <--
ADT JP 61140527 A JP 1984-263874 19841214; JP 06062431 B2 JP 1984-263874 19841214
FDT JP 06062431 B2 Based on JP 61140527
PRAI JP 1984-263874 19841214
IC **A61K039-02**
ICM **A61K039-02**
ICS **A61K039-114**
AB JP 61140527 A UPAB: 19930922
Oral vaccine for prophylaxis of periodontitis, where the vaccine is made as antigen, which is whole cell, pilus or extract of periodontitis causative bacterium. Bacterium is eq. Bacterioides gingivalis or Actinomyces viscosus.

USE/ADVANTAGE - By oral administration of this vaccine, local immunity mechanism is stimulated, by antibody eq. IgA, IgM, injection by periodontitis causative bacterium is protected specifically. Especially inoculation of vaccine at juvenile age, gives long period of immunological competence, it is effective for prophylaxis of adult periodontitis. It is more safety than injective administration.

Gingivalis 381 strain is cultured on hemin and menadione added Todd. Hewlet broth for 2 days. Cell is collected by centrifugation (8,000 r.p.m 15 min), washed by phosphate buffer (5 mM, pH 7.4), treated by 0.5% formalin over night, and inactivated vaccine of cell antigen is obtd. The antigen is stored in refrigerator (at -80 deg.C), and used by thawing. For administration, in the case of antigen, cell containing solution adjusted at 10 power 4 - 10 power 10 /ml is administered (p.o) at 0.1-10 ml/day for 3-15 days. In the case of pilus or extract antigen, these containing solution adjusted at 0.01-10 mg/ml is administered (p.o) at 0.1-10 ml for 3-15 days

continuously.
0/0
FS CPI
FA AB
MC CPI: **B02-V02**; B04-B02B1; **B04-B04C1**; **B12-A01**;
**B12-L03**; **B12-L04**; D05-H07

L61 ANSWER 5 OF 5 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
AN **1985-236083** [38] WPIX
DNC C1985-102472
TI Vaccine against infectious bovine keratoconjunctivitis - comprises Neisseria or Branhamella gram negative cocci.
DC B04 C03 D16
PA (GWIN-I) GWIN R M
CYC 1
PI US 4539201 A 19850903 (198538)* 10
ADT US 4539201 A US 1983-546600 19831028
PRAI US 1983-546600 19831028
IC **A61K039-09**; C12R001-36
AB US 4539201 A UPAB: 19930925
Medicament inducing immunity to infections bovine keratoconjunctivitis (IBK) in cattle comprises an effective amount of gram -ve cocci from Neisseria and Branhamella sp., pref. those which are nonpathogenic in cattle, and not N gonorrhoeae or N. meningitidis. Admin. is pref. topically to the eye.
ADVANTAGE - The microorganisms used are effective immune stimulators, producing antibodies effective to produce immunity against Moraxella bovis, vaccines containing which do not produce practical protection against IBK (pinkeye).
0/7
FS CPI
FA AB
MC CPI: B02-V; **B12-A01**; **B12-L04**; B12-L09; C02-V;
**C12-A01**; **C12-L04**; C12-L09; D05-H07

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